

MANUFACTURERS' RECORD.

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER.

VOL. XXIX. No. 6.
WEEKLY.

BALTIMORE, MARCH 6, 1896.

\$4.00 A YEAR.
SINGLE COPIES, 10 CENTS

Manufacturers' Record.

PUBLISHED EVERY FRIDAY BY THE
Manufacturers' Record Publishing Co.
MANUFACTURERS' RECORD BUILDING,
Lexington and North Streets,
BALTIMORE.

RICHARD H. EDMONDS,
Editor and General Manager.
C. R. MARCHANT, Business Manager.

NEW ENGLAND OFFICE—John Hancock Building,
178 Devonshire Street, Boston, Mass.
S. I. CARPENTER, Manager.

Special Traveling Representatives:
RICHARD S. EVANS,
I. S. FIELD.

SUBSCRIPTION, - - - \$4.00 a Year.
TO FOREIGN COUNTRIES, - - 26s. 6d a Year.

BALTIMORE, MARCH 6 1896.

Wants a Department of Manufactures and Commerce.

THE COMMERCIAL EXCHANGE,
Des Moines, Iowa, March 2.

Editor Manufacturers' Record:

Your proposition for the establishment of an executive department of Manufactures and Commerce is both excellent and timely. The Department of Agriculture, established a few years ago, has been of great service to the activities within its scope. In like manner the best results must flow from a Department of Manufactures and Commerce. A broad gauge, brainy Secretary of Manufactures and Commerce, who knows how not to "withhold more than is meet," and who takes all markets into his reckoning, using our consular system to its utmost, would add greatly to our prosperity. The writer hopes that you will keep right along with this matter till "the end crowns the work." O. L. F. BROWNE, Sec'y.

Wants to See a Department of Manufactures.

Mr. W. G. Maxwell, of New York, in a letter to the editor of the Manufacturers' Record, says:

Your idea of a Department of Manufactures and Commerce is certainly brilliant and timely. No large business can be conducted successfully with inefficient representatives, and the affairs of a nation are no exception to the rule. Such a department as you suggest would be a splendid means of supervising the work of our consular agents, whose usefulness is now notorious, and a reproach to the country. I hope that you will not be satisfied with having brought this idea to the notice of the public, but that you will work at its development in detail, and be persistent in a determination to have it adopted as a practical scheme.

It requires no imagination to understand the wide and salutary influence of such a department generally, but this one matter of our consular improvement is sufficient justification of your idea.

Please keep me posted in what is being done, as I wish to aid as far as in my power to realize the proposed scheme.

The bank clearings for the week ended February 22, compared with the corresponding week of last year, as reported by the Commercial and Financial Chronicle, show for the total Middle Western States a decrease of 3.5 per cent, and for the total Southern States an increase of 12.6 per cent.

Why a Department of Manufactures is Needed.

The extension of our foreign trade—the opening up of markets for the product of our factories, whether this product be cotton goods or machinery—is one of the great questions which now faces the business interests of the entire country. The man who studies the mighty movement of our industrial life, which has already placed our country in the front rank of the manufacturing nations of the world, giving us the lead even of Great Britain, and who realizes, as every student of the subject must, that what we have accomplished is but the very beginning of progress, the limit of which no one can attempt to portray, will see that the world must be the field of our commercial enterprise. Outstripping all other nations in manufactures as we have done, we have now reached a point where we can profitably expand and look to other countries for a market for our products, that there may be no halting in this marvelous march of progress of which the world's history has no parallel. It is because of these facts that the Manufacturers' Record lately suggested the creation by Congress of a Department of Manufactures and Commerce, which, among its other duties, should look after our consular service, in order that our consuls, who are but the nation's commercial agents, should be selected with the same care that a great business house would give to the choice of a special foreign representative. We have a Navy Department and a War Department, and very properly; but trade and commerce will henceforth, to a large extent, be controlling factors in international affairs, and the world's civilization will be largely advanced and controlled by the dominating power of business expansion. How important, then, that there should be a Department of Manufactures and Commerce, the secretary of which should be as familiar with the trade interests of every civilized country, in order that he may know how to advance our foreign commerce, as the Secretary of War and the Secretary of the Navy must respectively be with the army and naval forces of other countries. Is there a member of President Cleveland's Cabinet, as brilliant as every man may be in his own field of labor, who is acquainted with the extent and the ramifications of the foreign trade of all leading countries, or who, without laborious investigation, could today outline the progress which our manufactures are making in opening up new markets, and tell what countries are presenting the most inviting field for the extension of trade? And yet foreign trade and colonization are the ruling factors in dictating the policy of nearly every country.

Mr. Charles Dudley Warner, in the last issue of the North American Review, takes up the question of the need of an organized consular service, because of its relation to our foreign trade. He says:

The consul is a business officer, without diplomatic functions, except in a few cases; he has nothing to do with politics. That he should be intelligent and patriotic—thoroughly American in sympathy—goes without saying. But to be efficient he must also have business training, experience of consular duties, and special fitness for the locality to which he is sent. It is a business to be learned like any other, and it will not be learned unless it offers a regular career to the aspirants for it. No business man in the world, no corporation, would undertake to carry on enterprises with agents selected on account of political services, and liable to be periodically displaced by other agents selected in like manner. Many good men get consulates through political influence, but in the slight tenure of their office they no sooner get a little fitted for their work than they are thrown out by an election, turned back into politics to scramble for another place, and their places are filled with green men. That we do not get as good service as other nations get is not due to our want of native ability in our appointees, but to the instability of tenure. If all our present appointees, with some weeding out, were trained into an organized service, with expectation of promotion, and a life career, we should have in ten years an admirable service; that is, if the appointees were compelled to have a business training in their occupation, and to become familiar with the languages of the posts they occupy. Up to the present time appointments are made very often of men who can neither read, write nor speak the language of the countries to which they are sent. The consequence is that the business of the offices must be done by subordinates who are foreigners, and sometimes by inferior men who will work for small pay. The consuls are compelled to rely upon these foreigners for information upon all subjects and for nearly every official act they perform. There are many American consular offices on the Continent, and doubtless elsewhere, that could not run a day except for the aid of these foreign assistants. These subordinates are commonly permanent, and they practically have control of the offices. They have control because the consuls are ignorant of the local language, and can only get information of our commercial and business relations second hand. It would be interesting to know how many of our statistical consular reports are really the work of foreign clerks. This may or may not be a criticism of them, but it would be more satisfactory to know that our own men were competent to make them.

We have men in the consular service fully as bright and alert and every way competent as consuls in the German, French or English service, and probably they are less liable to get into a rut. But, allowing for this, the service of many other nations is more efficient than ours because it is systemized and permanent, and because promotion depends at every step upon efficiency. And the esprit de corps counts for much. But it must be added that no service is really good that is not constantly watched and weeded. The tests of fitness cannot all be applied at the entrance.

Must Change the Facts.

In discussing the threatened railroad war, because of the loss of the corn trade by the Eastern trunk lines and the heavy movement to Southern ports, Messrs. Watson & Gibson, New York bankers, in their market letter, say:

In England now the roads are making special grain rates, as farmers there have been representing the imperative necessity of having relief. They ask the roads to charge less for the transportation of home-grown grain than imported grain. This is directly against the free-trade principle, and, on the surface, against the interest of the workmen, whose bread is cheapened by unrestricted foreign competition with the English farmers, but public opinion in England is working in favor of distressed agri-

culture, and the government is likely to bring in some measure of relief for the bankrupt farmer. It may be a duty on imported grain; it may be a bounty on home-grown grain, or it may be some measure of loaning public funds to the land owners at low rates. Discontent, at least, reigns throughout the agricultural districts of the little island. The writer remembers a conversation he had in London last spring with a prominent political economist there, who said that at the panic prices then prevailing for British farm land, he regarded it as the best purchase of anything in sight. His reason was that something would have to be done to make British farming pay. Farms there were allowed to go out of cultivation and the houses and improvements to go to ruin, while the soil had become impoverished for want of fertilizers and crop rotation. The farming situation in England is certainly desperate.

Surely there must be some mistake. Our free-trade friends have too long been holding England up as a model of all that is perfect in trade and finance, with unbounded prosperity, because of its free trade, for any of us to accept any such statements as these. Every trade disaster or depression in this country they vociferously claim to be due to our "abominable protection system;" but as to England, everybody is always prosperous, they say, and panics and depressions are unknown, because free trade produces prosperity, especially to the agricultural interests. Somehow these theories don't accord with the facts. Our free-traders must change the facts.

The Currency Question.

A long communication—"As to Currency Reform"—appeared in a recent issue of the Atlanta Journal from Mr. G. R. De Saussure, vice-president of the Exchange Bank of that city. A somewhat hasty reading of it shows that its author has devoted a great deal of study to the multitude of perplexing questions involved in his theme, and that his investigations have been guided in large measure by his belief that a practical plan could be devised of giving to the States the right to charter banks under conditions that would enable the government to maintain a constant supervision and control, that would insure an honest administration of the banks' affairs, provide a safety fund to protect the notes of a failed bank, give to the country an elastic currency redeemable in coin, this currency to be of uniform design and to be issued under supervision of the controller of the currency; in fine, a broad plan for merging the present excellent national banking system into a broader one that would benefit the banks and the business of the country and aid the government in retiring its issues of fiat money.

The writer makes one statement that will surprise the majority of his readers, saying:

By a misconception of the true relation which should exist between the national government and the States in connection with the paper currency, this country has in 100 years seen five attempts by the national government to establish a lasting paper currency, and as a result the progress of the country has five times been dealt a blow which, in a country of less new vigor

and recuperative powers, would have meant national financial ruin.

The present national banks were created in order that the government might borrow from them. The government said to them: You buy our bonds and we will allow you to issue notes to circulate as money, and we will protect you against the issues of State banks by making such issues subject to a bill of 10 per cent. tax. This was a case of the national government looking after its own financial interests and selfishly forgetting its own sacred duty to the people. * * If the truth were known, the five experiments of the national government with the paper currency of the country have cost the people more than the amount represented by our present debt.

The entire article of Vice-President De Sausure is a conservative contribution to the general discussion and shows clearly that this young banker of Atlanta is one of the many practical young men of the South who have laid aside partisan considerations and are honestly seeking to understand the problems of the times and to assist in working them into a safe and elastic system for the betterment of the nation.

The B. & O. Receivership.

The appointment of receivers for the Baltimore & Ohio Railroad Co. probably surprised no one who has watched that road for the last ten or fifteen years. A steady and rapid accumulation of interest-bearing debt far in excess of business, every enterprise costing far more than the estimates, the payment of dividends not earned, the absolute domination of the company by one interest, the utter disregard for years of local business, the craze for through business, a persistent policy which resulted in making enemies rather than friends, discriminations which forced coal and other development operations to other lines and which has made it almost impossible to induce investors to buy coal properties along this road—these are a few of the things known to everyone who has watched the Baltimore & Ohio management. The outcome was inevitable, and it is surprising that it was so long delayed. Far better would it have been if receivers had been appointed ten years ago. Probably the selling knife would not then have had to cut so deeply as it will now before there can be any reorganization. No business man deserves any sympathy for losses in the stock—widows and orphans do—for no business man could have studied the situation without seeing whither the road was tending.

For everybody except the security-holders the receivership will be beneficial. It will result in a much-needed physical improvement, in large outlays for betterments and doubtless in a radical change of policy of great value to the country tributary to its lines.

Nearly two years ago the Manufacturers' Record published a detailed outline of the probable future of this road, predicting that it would pass under the control of Drexel, Morgan & Co., now J. P. Morgan & Co., and become in effect a part of the Southern Railway system. This we believe will be the outcome of the reorganization. When that has been accomplished, Mr. Morgan will probably have unfortunately gotten his control over the system, thus adding one more great company to the gigantic operations of which he is the dictator. The Manufacturers' Record's only objection to this is that Mr. Morgan is becoming too much of a dominating power in railroads and finance for the good of the country. There is danger ahead in such power centred in one concern. But this is a digression.

As the connecting link between New York and the South the Baltimore & Ohio Railroad can be made of immense value to the 9000 or 10,000 miles of Southern roads now controlled by Mr. Morgan. When this comes about there will be a grapple of the giants—the Pennsylvania and the Morgan interests fighting for control in the Southern territory.

Western Enterprise.

Cripple Creek is an elevated valley in Colorado in which gold has been found of such richness and in such quantities that it and all the region surrounding it have become the centre of an immense stock speculation that, if it should continue for several years at the high pace upon which it has entered, will probably take from the pockets of outsiders as much or more money than will be taken from the mines during the same time.

Out in Eastern Washington a large territory, long held as an Indian reservation, has now been opened up to settlers, and as gold and other valuable minerals are stored in the mountain ledges, there are hundreds of adventurers camped out in the snow, prospecting and staking out claims in anticipation of the great rush that will go there as soon as spring opens. Within a year, if half that is told of that ore district is true, that will become another centre for the organization of stock companies of the class that mine the pockets of investors much more than those that nature made and stored with wealth. It has been the experience of the country, since the California pioneers, after exhausting the placer deposits, began to organize large corporations, with capital enough to tunnel the mountains and to build great stamp mills and costly reduction plants, that whenever a new and promising ore district has been taken up and mining prosecuted to an extent sufficient to warrant the putting up of expensive works, a large crop of mining companies springs up in the same territory, and dazzling prospectuses are sent to people in all parts of the country to allure them into making investments. There are a few men rolling in wealth, who made their fortunes by this kind of mining, while there are thousands of people who mourn the sums, small and large, that they paid for the worthless papers that were bought in the expectation of large dividends monthly for many years.

Recently a party of Colorado hustlers, some of them men who have acquired large wealth in mining, or in the buying and selling of ore properties, or in speculating in mining company stocks, went on to New York to attend the opening of the new Mining Exchange in that city, of which most of them were members. They were bright, intelligent and very pushing men. Most of them had large interests at Cripple Creek, and those who had taken part in the organization of the exchange frankly stated that they wished an exchange at the metropolis at which none but good stocks would be listed and sold, for it was necessary to build up the reputation of Colorado's mining corporations by keeping the public advised of what the legitimate ones were doing, and of warning it against those that were purely speculative. On this plan the Colorado men and the New York brokers who have seats in the Mining Exchange expect to build up a big business at the East.

Is there not in this story of Colorado enterprise a suggestion to Southern

business men? There are many and exceedingly varied opportunities for development in the South that have never been touched. There are numerous well-established and fairly prosperous industries that may be greatly enlarged. Above all other places in the United States, New York city is the spot to which foreign and American capitalists most go when seeking profitable investments. There is more money carried there for investment in enterprises in the far West, in Mexico, in South America and in more distant parts of the earth than to any dozen other American cities that could be named. If a man has an India rubber forest, or a mahogany grove, or a lake of asphalt, or a guano island, or any other thing of very large value in some distant but accessible part of the earth, New York is the place to find a purchaser or to organize a company for developing that property. And if a man or a corporation wishes to meet people from every section of this country, or representatives of the brightest and brainiest business men of all the world's commercial centres, for the purpose of presenting some large matter of business to them, New York is the place to do it. And these suggestions lead us back to the question, Are there not in the South business men whom the action of the Cripple Creek gold miners will stimulate to a search for some equally effective plan that will attract increased attention to their unequalled opportunities for enterprise and capital?

An Extensive Lime Plant.

The extensive lime plant mentioned in the Manufacturers' Record last week as to be established near Anniston, Ala., by the Anniston Lime & Stone Co., will be located at Colvin, on the Louisville & Nashville Railroad, about eighteen miles from Anniston. The company will immediately begin the erection of four lime furnaces of the most modern style, a warehouse, barrel factory, tenement-houses, etc. It is thought that this will probably be the largest lime plant and shipper of high-grade fluxing stone in the South. The capacity, it is expected, will be about 1000 tons per day to begin with. Mr. John H. Noble, of Anniston, is president of the company, and Mr. R. H. Cobb, vice-president and general manager.

Draining Florida Lands.

A dispatch from Sebastian, Fla., states that Messrs. W. W. and A. O. Russell, of Cincinnati, Ohio, whose plans for draining a tract of land in Brevard county have already been detailed in the Manufacturers' Record, are about to begin operations. The final survey from the lands to the Indian river shows a fall of twenty feet to six miles, which is sufficient fall to create a swift-running stream. In all sixty-four miles of canal will be dug, with thirty-two miles of dykes. Two years, it is estimated, will be required to complete the canal digging, but Mr. Russell purposes to finish the main canal first, so that the land thus drained may be utilized.

Mr. W. W. Russell says that it is the purpose to locate colonies of Swedes and experienced farmers from the Northwest on the lands, which will be known as the Cincinnati Farms. When the draining shall be completed there will be 80,000 acres of the best lands along the Indian river for vegetable farming, as well as for sugar and all kinds of staple field crops. Mr. Russell says that the cost of canal building alone will be several hundred thousand dollars. In connection with the enterprise it is proposed to build a 10-mile railroad to connect the property with the Florida East Coast Railroad.

The South's Day of Salvation.

By Thomas P. Grasty.

The ill wind that for several years has been blowing all over the face of the earth with persistent severity has been "tempered," as if by special divine favor, to at least one shorn lamb.

The South has actually fattened while the rest of the country was being put through a process of emaciation.

There is said to be "a tide in the affairs of men, which, taken at the flood, leads on to fortune." If this be true of individuals, it is all the more true of States and countries.

Taking a tide at the flood means, in plain work-a-day parlance, making the most of opportunities. Waiting for things to come of themselves would be well enough were this the age before the flood, when human life was prolonged into hundreds of years. But now the man who waits risks wrecking everything by staying poor in his own lifetime, and through his very poverty he handicaps his children's chances. The South is the coming country—there is no denying that—but if its coming be too long delayed those who ought to reap the benefits will, if they live long enough, be found repeating the plaints of the five foolish virgins, whose lamps were never lit. Indeed, just at this juncture the parable of the ten virgins is so profitable for instruction to our people that it ought to be printed in all the papers, since there are nowadays more newspaper readers than readers of the gospel according to St. Matthew.

The approaching exhibition of Southern resources and products at Chicago ought to be the inauguration of a new era whose fruits will be enjoyed not by another generation and by other dwellers in the land, but by our own people right away.

It will be either a tremendous development agency or it will be a destructive boomerang. It will bring great credit or derision and chagrin. Whether it prove a power for good or for evil depends, of course, upon the Southern public, and whether the Southern public will do its duty depends almost entirely upon the press.

There is a pledge out for the press of the South that must be kept or we shall lay ourselves open to an imputation of bad faith. During the sittings of the ways and means committee of the exposition convention at Chicago it was formally incorporated in the first draft of the mutual agreement as to the obligations of the Southern States, on the one hand, and the city of Chicago on the other, that the undertaking should be thoroughly advertised throughout the South by the Southern management, and in the Northwest by the Chicago management. Then the question arose whether a fund, to be expended for general advertising according to Chicago methods, could be raised, in view of the fact that every channel for money-raising would be monopolized in behalf of getting together and shaping up the exhibits in which there would be very properly much friendly rivalry between the States. To prevent an expose of our lack of education in the science of modern advertising, ex-Senator Walsh, with consummate tact, saved any possibility of ultimate humiliation, by promising that the press of the entire South would treat the undertaking with such public-spirited patriotism and would give it such gratuitous prominence as to make it unnecessary to incorporate any specific obligations concerning the raising of a general fund for advertising the enterprise throughout the South. And in giving this pledge the representatives of all the States backed Mr. Walsh up so heartily

that the Chicago members of the committee accepted their assurances with evident satisfaction.

It thus becomes a matter of honor on the part of Southern newspapers to emphasize the importance of intelligent participation in the exposition by every State, and, indeed, almost every county. It was understood that Senator Walsh should personally undertake the maintenance of a bureau of information, with headquarters at Augusta, Ga., and in doing this there will be more or less expense, toward which it is to be hoped our large property-owners in various States will freely contribute. Senator Walsh's work, however, will no doubt be largely directed toward giving to the newspapers in every city and in every town and county accurate information, which, when put in print, ought to be, and doubtless will be, more eagerly read than any other news, because it is hard to see how the material welfare of the South is half so vitally concerned in anything else that may occur during the next six months, and the people of the South are beginning to understand in what direction their true interests lie. And so let the press begin the agitation and keep it up, lest when August comes there be found some foolish virgins bewailing their own negligence.

At the outset of this little talk to our own people it was stated that while the whole country had been "in hard lines," the South had prospered during the last three years. We must let the world know how this condition came about. We must spend a million dollars at Chicago, which will be as that much money's worth of seed sown in good ground. It is the idiotic farmer who is stingy in his sowing. How will the harvest come? It will come in a demand for land. It will come in the diversified products of this land, which thrifty hands will till. It will come in keeping at home money that now goes abroad. It will come in more mines, more factories, and consequently better home markets for the products of farm and orchard and garden. It will come in more money invested, more money in circulation and more business for merchants. It will come in the solution of the negro problem and in making it as easy to borrow money on Southern land and other security at low rates of interest as it now is on property in New York or New England.

Suppose you or I were suffering through lack of ready money, but were the owner of a large suburban tract adjoining some great centre in a malarial climate; and suppose this tract had just been proven to be the healthiest, with the purest air and water, all platted in lots and provided with streets, and withal the most accessible in all the vicinage of that sickly city. Would we adopt the waiting policy for these facts to become generally known? No; but unless we were ourselves overcome by some mental malarial attack, benumbing our very senses, we would mortgage it to get money to fill pages of newspapers and to placard the town with the facts in the case, until the last lot (that we didn't want to keep for ourselves) was sold at a satisfactory figure. The South today is endowed with conditions which need only to be made known to command buyers from all over Christendom, and ready cash is the thing our people stand most in need of. They have what is readily marketable in the shape of surplus lands and in undeveloped mines and in raw material ready for factories, all in a country whose other sections are suffering today from financial

malaria, and whose people are easily persuadable to make changes for their own betterment.

Until now the failure of the South to awake to the importance of advertising its resources was in a measure excusable, because the tide was not coming our way. Indeed, it is as foolish to advertise at the wrong time as to fail to advertise when the time is ripe. But partly through the adversity prevailing in other sections and partly through the present prosperity at the South, but mainly by reason of the presentation of this Chicago opportunity and the focusing of attention already begun by the liberal and cordial comments of the great Chicago dailies in their zealous endeavors to bring about closer relations between their city and the South—on account of these conditions and instrumentalities it is now heard everywhere that the South's day of opportunity is at hand, and all that remains for us to do is to make the most of it.

Last week the Manufacturers' Record devoted the open space on its front cover to emphasizing the idea that the coming Southern States and Chicago Exposition was the whole South's opportunity, in no sense restricted to any one locality. Every daily paper ought to be prompt in echoing that sentiment, or else we will present to the world the spectacle of a narrow-minded, jealous lot of self-seeking discord-brewers, unworthy of any substantial successes because incapable of broad-minded co-operation. What boots it if the movement did start in Augusta? It had to start somewhere, and Augusta is the kind of town where the new and the good ought naturally to originate, because it is through the new and the good that its people live and flourish. It has many cotton mills, and is going to have more. Why shouldn't Augusta take the initiative in paving the way for new markets for what it makes? The other Southern cities, instead of feeling piqued at, should feel grateful to Augusta and Pat Walsh and Mr. Verdery and Colonel Dyer, and the other wide-awake citizens of Augusta who started the movement. Not one of them had any private axe to grind.

The Chicago Daily Post, under the heading, "Cotton Exposition Assured," prints an editorial which ought to be widely disseminated, so that our people may see what sorry spectacle they will present if they fail speedily to rise to the higher plane of the situation and pull together like men and brethren and patriots. Here is the Post's editorial:

"The holding of the Cotton States Exposition in this city next autumn is assured. Chicago will furnish the money and the fifteen Commonwealths beyond the Ohio will furnish the exhibits. The opening date will be August 15 or September 1.

"It would be impossible for the undertaking to be launched under more auspicious circumstances. All that the promoters had hoped for, and more, has been pledged. Nothing remains but to dissipate any feeling of local irritation which may have been caused in any part of the South by the fact that the Atlantic seaboard towns have had the honor of initiating the effort. That this will be accomplished we cannot doubt. The plan should not lack the hearty co-operation of any of the Southern cities.

"As for Chicago's share in the enterprise—when did she ever look back, having once put her hand to the plow? The exposition will be a success in itself and a great stimulus to trade between the South and the Northwest."

NORTH CAROLINA GOLD FIELDS.

The Need of a Central Reduction Plant.

Salisbury, N. C., February 17.

Editor Manufacturers' Record:

The Manufacturers' Record of February 16 and May 25, 1894, published letters by the writer on the gold fields of this section of North Carolina, which embrace ten counties, viz: Guilford, Randolph, Moore, Davidson, Stanly, Montgomery, Rowan, Cabarrus, Union and Mecklenburg counties.

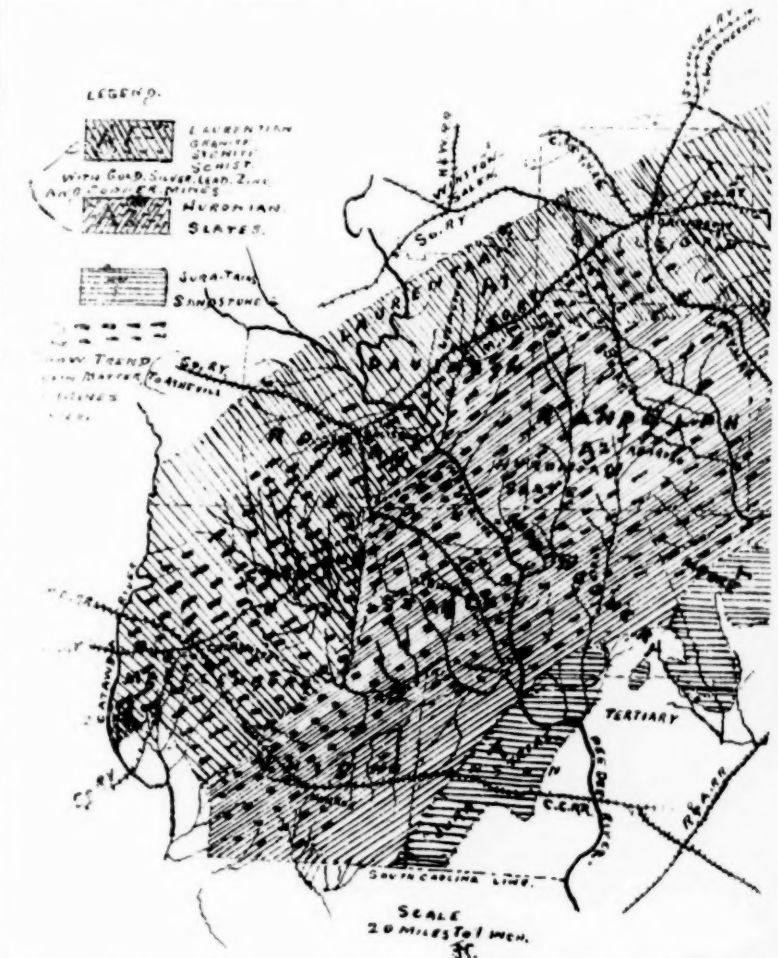
I made the assertion then that this was the richest gold field in the world, and gave some figures to prove it. I am now more convinced of the correctness of the assertion than ever, and write again to sustain my assertions, giving a detailed map of the belt and a tabulated statement of the products of the belt.

Recently I have been reading what Herr Schmeisser, E. A. Schneider, Ph.D.,

Sulphur, Each;" "Deepest Working on the Mine," "Approximate Production to Date," "Approximate Amount of Vein Matter," "Ore in Sight," "Tons," "Probable Daily Capacity," "County in Which Located," "Remarks, Including a Brief Description of the Mine." I found when I had done this that I had 383 mines described. Then, according to the number of the mine on the list, I located each, geographically correct, in each county on the map.

This data was compiled from my personal knowledge, official publications, mine-owners and mining men, and is as correct as can be made from careful revision.

The small map that I have made and send with this needs but little explanation. The trend of the vein matter is usually northeast and southwest; the dip, usually southeast, but some dip northwest and some are vertical. The geology is shown. The area is about 100 miles long by about forty miles wide. I con-



MAP OF TEN COUNTIES IN NORTH CAROLINA SHOWING THE MAIN GOLD BELT OF THE STATE.

Mr. Hamilton Smith and others, noted scientists of Germany, England and elsewhere, have been writing about the Witwatersrand and other African gold-fields, which until recently have been considered the richest in the world; of West Australia and of the Western States of the United States, as well as various articles on the Appalachian gold-fields—reading them in comparison with what I know of this immediate belt.

Following up my article in the Manufacturers' Record of February 16, 1894, I made a map of the ten counties named in this field, on a scale of two and one-half miles to the inch. I then hunted up every mine at which any work had been done. I then took some large sheets of cross section paper and headed it "Descriptive List of North Carolina Mines in 1894." Then, under vertical columns, with the following headings, I began: "Number of Mine," "Name of Mine," "Class of Ore, Whether Gold, Silver, Copper, Lead, Zinc or Sulphur;" "Value (Mill Value, Not Assay Value) Per Ton in Gold, Silver, Copper, Lead, Zinc and

tend that it is the richest in the world.

The table herewith shows the totals of each county, as per my list, and the grand total of the ten counties:

As will be seen from the table, we have a list of 383 mines, 187 of them reporting a production of \$14,356,000, with an average mill value of ore of \$7.02 per ton; silver, thirteen ounces; copper, 4.95 per cent.; lead, 9 per cent.; zinc, 5 per cent.; sulphur, 6.85 per cent.; 4,090,600 tons of millable ore in sight in reserve in the mines, and with a possible daily capacity of 3055 tons. This is what these mines now have and can do. Of course, the reserve and output can be increased with proper working of the mines.

Comment on the above is not necessary, for it speaks for itself. Yet I wish to add more. The summary is so stupendous that it might startle the most credulous, not to say anything of the critics and scoffers. Those who doubt my figures of \$14,356,000, of these ten counties, will at once say they are wrong, for the director of the mint, in "Precious Metals" in the United States for 1894, page 286, gives

the total production of the whole State to December 31, 1894: Gold, \$11,773,222.35; silver, \$66,441.54; total, \$11,839,663.89, or \$2,516,336.11 less for the whole State than I give for the ten counties. Let us see about this. The mint reports only what is deposited. My reported production embraces gold, silver, copper, lead and zinc production. Again, if only gold and silver were estimated, I would be nearer right, for no mine sends all of its products to the mint. Many never send an ounce of gold or silver to the mint or report a pennyweight of product. I know of one mine that produced somewhere in the neighborhood of \$50,000 in gold last year. I do not think a pennyweight of it was deposited in the mint or a report of any of its products made. Hence, if this view of the production of North Carolina is taken for the last sixty years or more, my figures are below the correct amount of output.

I hope I am understood in this. Let us then take the total average value of the ores of the mines next. I want it understood that this is not what the ore contains. An ore is not worth what it contains, but what is saved out of it. Hence, my average is what these ores have been yielding at the mill, nearly all of which, as regards gold ores, has been by simple

that frequently amount to more than the gold contents, are lost.

Let some rich syndicate erect a plant in a central location for the treatment of our refractory ores, not for any one metal the ore may contain, but for the whole contents of the ore. Let them invite the miners or mine owners to produce the ores and deliver them to the works for treatment at fair charges for the contents of the ores, just as the farmer raises the wheat and sells to the miller. Let no mill mine ores, nor any mine mill ores, and there will be a success, thus making this belt the richest country in the world.

J. J. NEWMAN, M. E.

Population Moving Southward.

There is increasing activity in the purchase of Southern farm lands for colonization purposes. The interest which has been aroused throughout the country in the extensive colonization work in and around Fitzgerald, Ga., has caused great activity in that territory, and along the line of the Georgia & Alabama Railroad and the Abbeville & Waveross branch of that system arrangements are being made for very large settlements. A dispatch to the Manufacturers' Record states that the sale of 10,000 acres of land in the vicinity of Forest Glen, a point on the Abbeville

sociation, of Fruithurst, have purchased 8000 acres of land adjacent to and near Anniston, and will colonize it with Scandinavian and German grape-growers. The organization will be known as the Anniston Homestead and Fruit Growing Association, and will be capitalized at \$150,000. It is stated that the company will begin planting vineyards within the next ten days, and that the foreign agency organization of the Alabama Fruit Growing and Vinery Association, which has for some time been in operation at Fruithurst, will be used to bring immigrants to this property.

In other parts of the South contracts are being made for large purchases of land for similar work, and every day seems to add strength to the movement of population southward.

Probable Important Development of Coal and Iron Property.

In the Manufacturers' Record of last week Mr. H. S. Fleming, M. E., gave some facts regarding the combination of advantages possessed by the extensive property of the La Follette Coal & Iron Co. around La Follette, Tenn. Mr. Fleming pointed out that the iron ore, coal and limestone at that point are in remarkable proximity, and that, allowing for all contingencies, iron could be made at \$6.86 a ton. His estimate was as follows:

"Calculating now the cost of pig iron:

1½ tons coke, at \$2.15..... \$3.23
2½ tons soft and hard ore, at 63 cents. 1.58
½ ton limestone, at 60 cents..... .30

Material..... \$5.11
Labor, incidentals, etc..... 1.75

Total..... \$6.86

"This estimate allows a good margin for improvement, as the cost of coke is made high, allowing both royalty and profit on the coal and coke. If, as in regular operations, slack coal was largely used for coke making, the cost of the coke could be reduced about forty cents, bringing the cost of iron to \$6.26. The probabilities are, however, that from \$6.50 to \$6.75 will come near being an average cost."

It will be seen that Mr. Fleming has allowed one and one-half tons of coke to a ton of iron; that he has purposely put the cost of coke high, and allowed for royalty and profit on coal and coke. Even on this basis he figures that iron can be made as low as \$6.26 a ton. A less conservative engineer than Mr. Fleming would have made the figures considerably lower on the showing which he made. The main point of the matter, however, was that this great property of 40,000 or 50,000 acres could not be developed until a railroad was secured. Since then a telegram to the Manufacturers' Record from Callahan & Co., prominent railroad contractors of Knoxville, announces that they have just closed a contract to build and complete within four months fifteen miles of road from Bibb's Cut, on the Southern Railroad, to the town of La Follette, twelve miles, and thence three miles further into the company's property. Mr. Harvey M. La Follette, of La Follette, in a letter to the Manufacturers' Record gives some additional particulars confirming the contract. In an interview in a Chattanooga paper Mr. La Follette is quoted as saying that he has purchased the entire interests of Mr. J. E. Keller and B. R. Hutchcraft in the various properties at that place, and that large coal and coke developments will be made promptly. Thus another great coal, iron and timber property is to be opened up and a new iron-making and coke-producing region of exceptional advantages brought to public attention. Everywhere the South is moving forward.

RAILROAD NEWS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

Heavy Increase in Railroad Earnings

The earnings of the Georgia & Alabama Railway continue to show very decided increases over the past year. The earnings for the week ending February 22, 1896, were \$13,535.91; same period last year \$7022.10—an increase of 92½ per cent. For the three weeks ending February 22, 1896, the earnings were \$34,563.03; same period in 1895, \$23,744.86—an increase of 45½ per cent.

For a Gulf Harbor.

A committee of the Mississippi legislature, having been appointed to select a point on the coast where a deep-water harbor may be developed, has visited several points with the view to favoring a State appropriation to improve it if a suitable harbor can be selected. The Gulf & Ship Island Railway Co., now extending its road to Hattiesburg, Miss., is endeavoring to have Gulfport, the present terminus of the line, selected.

Aransas Pass Project.

A director of the Aransas Harbor Company informs the Manufacturers' Record that the company will take no further steps towards selling property at Aransas City until the jetty work is completed and the harbor permanently improved. The Aransas Harbor & Northern Railroad Co. will have its surveys completed in a few weeks. He states that immediate steps will then be taken to build the line to connect with the Missouri, Kansas & Texas system at Smithville.

Exports from Pensacola.

The export business from Pensacola, Fla., is sufficient to load a steamship monthly. Although this trade is just being developed through the efforts of the United States Shipping Co. and the Louisville & Nashville Railroad, the prospects are very encouraging for a steady increase. Much of the traffic is from the West, coming over the Louisville & Nashville system.

Rolling Stock for the Seaboard.

The rolling stock to be purchased by the Seaboard Air Line, referred to in the last issue of the Manufacturers' Record, will include fifteen locomotives and 150 freight cars. The locomotives will be ten-wheel engines, with 19x24-inch cylinders and of the compound type. They will be identical in size with the freight engines placed in service a few months ago. These locomotives alone will cost over \$150,000.

An Important Short Line.

In a telegram to the Manufacturers' Record, Messrs. G. W. Callahan & Co., of Knoxville, Tenn., announce that they have secured the contract to build a railroad through the property of the La Follette Coal & Iron Co. to Bibb's Cut. The project of this company at La Follette, Tenn., was detailed in the last issue of the Manufacturers' Record, and the road will give transportation facilities by connecting with the Southern system. It is to be extended eventually to Jellico, Tenn., giving the company an opportunity to ship by the Southern or Louisville & Nashville systems.

Mobile to Jackson.

A dispatch from Mobile, Ala., states that the Mobile, Jackson & Kansas City enterprise is receiving much encouragement. The construction company asks

TOTALS FROM DESCRIPTIVE LIST OF MINES IN TEN COUNTIES OF NORTH CAROLINA IN 1894.

County.	No. of miles in county.	No. of reporting production.	Approximate production to date.	Number of mines each. Class of ore. Approximate mill value per ton.						Deepest workings, in feet.	Vein. Tons of ore in sight.	No. of tons daily capacity.
				Gold.	Silver.	Cop'r.	Lead.	Zinc.	Sulp'r.			
Rowan.....	75	15	\$4,097,500	74	5	45	3	3	75	850	350,000	440
Cabarrus.....	75	28	944,000	75	10 oz.	26	5	12	7	365	163,000	500
Mecklenburg....	51	29	3,592,500	51	13	4	5	3.5	8.5	400	125,000	300
Moore.....	11	5	75,000	7.50		4			7	160	62,500	55
Gulford.....	10	9	495,000	16		4.5			7.5	310	119,000	145
Randolph.....	32	11	1,182,500	10.00		6.5			9	350	425,000	240
Davidson.....	31	13	1,335,000	52		2			30	750	309,700	325
Montgomery....	32	27	1,181,000	6.25	5	3	5	5	2.5	150	2,377,500	550
Stanly.....	36	32	503,500	29	20	6.5	10	10	16	150	12,000	75
Union.....	24	18	700,000	5.25	3	3	3	2	1	300	246,900	405
Total.....	383	187	\$14,356,000	7.25	13	4.95	9	5	6.85		1,690,600	3,055

amalgamation. Anyone familiar with this mode of treating gold ores in North Carolina knows that if 50 per cent. of the contents of the ore is saved by amalgamation, the mill is doing well. Then, a mill average of \$7.02 from 383 mines shows a rich ore.

I claimed that there are 16,500,000,000 tons of available ore in this belt worth \$7.50 per ton, equal to \$123,750,000,000. My summary goes far to prove the correctness of my assertion for gold alone.

Why then should capital look elsewhere for a field for profitable investment? No other field of like area can show such an array of facts. The question then naturally presents itself. Why, if this field is so rich and has so many mines known to exist, have there been so many failures and the whole district practically idle? The answer is a long tale often told. Incompetency, lack of capital and inability to save the contents of the refractory ores at a profit being the chief of all the trouble.

Chlorination is now being tried successfully in treating refractory gold ores. The cyanide process is being tried, with hopes of success. But these processes only save the gold contents, while the other contents in the refractory ores, such as copper, silver, lead, zinc and sulphur,

& Waveross branch of the Georgia & Alabama Railroad eight miles from Abbeville, Ga., has been completed, titles examined and executed and the purchase money paid, and surveys are now being made for division and allotments of farms are being proceeded with. Arrangements have been completed for locating on this property between 300 and 400 families, and they will begin to arrive as soon as the surveys of the land have advanced sufficiently far to divide up the tracts. The topography of the land, the healthfulness of the locality, the soil, the natural timber growth, the adaptability for miscellaneous crops, the establishment of orchards, fruit farms, vineyards, etc., and the proximity of the entire tract to the Georgia & Alabama Railroad, render this purchase an extremely desirable location for Western settlers.

The same dispatch states that other colony locations along this line, embracing still larger areas of land, are assuming satisfactory shape towards completion and settlement, and final contracts for these properties will probably be closed within a few weeks.

Mr. W. G. Ledbetter, of Anniston, Ala., and some associates connected with the Alabama Fruit Growing and Vinery As-

for a subscription from Mobile of \$125,000, and about half this amount has been raised, so it is stated. J. C. Clarke, People's Bank; Pollock & Bernheimer, Adam Glass, J. K. Glennon and C. L. Lavretta have each subscribed \$1000. The Mobile, Jackson & Kansas City is to be constructed first between Mobile and Jackson, Miss., if the funds are secured to build it. Hon. H. Austill and Mr. F. B. Merrill are promoting the enterprise.

Baltimore & Ohio Receivership.

Messrs. Jno. K. Cowen, recently elected president of the Baltimore & Ohio Railroad, and Oscar G. Murray, recently elected vice-president, have been appointed receivers of the road, through the default in payment of \$337,000 interest, due March 1, in addition to several obligations due at the same time. The receivership extends to all parts of the B. & O. except the Pittsburg & Western, of which Mr. Thomas M. King has been placed in charge by the courts. The system embraces nearly 2100 miles, with branches. It reaches Philadelphia, Baltimore, Washington, Pittsburg, Wheeling, Cincinnati and Chicago. Its rolling stock comprises about 900 locomotives, 500 passenger cars and about 27,000 other cars.

Another West Virginia Line.

A dispatch from Charleston, W. Va., announces the formation of another company to build a railroad through the Coal river territory. The charter calls for a route from St. Albans to the Forks of Coal, thence to Peytona, on Big Coal river; thence to the junction of Marsh and Clear Forks, thence by way of Marsh Fork to the Norfolk and Western Railroad, in Mercer county, with a branch railroad fifty miles in length extending from the Forks of Coal to Boone Court House, thence to the junction of Pond and Spruce Forks, thence to the headwaters of Pond Fork and to the Wyoming county line. The main stem will be 120 miles long. The principal promoters of the enterprise are Robert T. Olney, Roman Pickens, Thomas L. Broun, Stephen T. Tenys, Joel H. Meadows, Cassius D. Hereford and Fontaine Broun, all of whom are reported to be Coal river landowners. The main office is to be at Charleston.

The Pennsylvania Report.

Following the report of the Northern Central Railway Co. comes that of the corporation controlling it, the Pennsylvania Railroad Co. As was to be expected, the report is very exhaustive and voluminous, and sets forth a very satisfactory state of affairs. This is due in part to the remarkable revival of the iron and steel industry, of which the Pennsylvania road was a large beneficiary. But its pronounced increase of earnings indicates also the general improvement of business in this country. The entire system earned in gross about \$11,000,000 more than the previous year, and its net earnings were about \$3,000,000 more than the previous year, in spite of the expenditure of \$2,000,000 in maintenance and improvements. As in the case of the Northern Central, the Pennsylvania has not increased its net earnings at the expense of the physical condition of the system, but has spent money judiciously wherever needed. Nearly \$2,000,000 was paid for construction work on auxiliary lines; over \$2,000,000 on roads west of Pittsburg, and over \$600,000 for rolling stock and real estate on the main line. During the year \$3,000,000 in 7 per cent. securities were replaced by 4 per cents and readily sold in the London market. Among the important improvements now

under way are the construction of a large bridge over the Delaware river, by which an all-rail route is formed to Atlantic City and New Jersey resorts from Philadelphia, and the elevating of the road through Elizabeth, N. J., to avoid grade crossings.

Norfolk & Western Reorganization.

A New York dispatch states that the plan of reorganizing the Norfolk & Western Company will be given out in about ten days. The new securities will include only three classes: A first consolidated 4 per cent. mortgage for \$80,000,000, preferred stock \$25,000,000 and common stock \$65,000,000. Of the bonds, \$23,000,000 will be required to take up such securities as are disturbed under the plan, and the balance are reserved for undisturbed bonds as they mature and for betterments, equipment, etc. The above-mentioned \$23,000,000 of bonds and a like amount of preferred stock will be used to adjust the disturbed bonds, viz: Adjustment bonds, 100-year bonds, Maryland & Washington, Clinch Valley, Equipment, Roanoke & Southern and Lynchburg & Durham. The old common and preferred stock, on payment of an assessment of \$12.50 per share, will receive new common stock, the old common stock 75 per cent. and the preferred 112 per cent. The assessment will be underwritten by a syndicate headed by Messrs. Brown, Shipley & Co., London.

Kansas City, Pittsburg & Gulf.

General Manager Hammond, of the Kansas City, Shreveport & Gulf, reports progress of construction work on the Kansas City, Pittsburg & Gulf, of which the former is a division, as follows:

"Contracts for constructing the Kansas City, Shreveport & Gulf from Shreveport south have been awarded for a distance of seventy-five miles, and the work is covered this distance by a large force of graders. The engineer corps are pushing the work of location through Sabine and Vernon parishes and will have the permanent locations of an additional seventy-five miles ready for the contractors in a very short time. The grading of the Port Arthur & Beaumont line is fast nearing completion. Tracklaying on this section of the road will be commenced in a few days.

"The gap of sixty miles north of Texarkana, Texas, is covered with a large force of men and teams, and the work is being crowded to its utmost. It is expected this gap will be closed by September 1 and trains in operation from Kansas as far south as Leesville, La. The forces now employed aggregate about 3000 men and 1200 teams; 35,000 tons of steel rails for the gulf extensions are being delivered at the rate of 5000 tons monthly from the rolling mills. Contracts for the furnishing of 800,000 cross-ties have been awarded to Signor, Burton & Co., of Sodus, La. Four tracklaying machines have been contracted for to push the work of tracklaying from the various points mentioned."

Field's Advice to Garrett.

When young Bob Garrett took it upon himself to run the earth, after he became president of the B. & O., he started the Baltimore & Ohio sleeping-car system, the Baltimore & Ohio Express Co. and the Baltimore & Ohio Telegraph Co. One day he ran across Cyrus Field in New York, and the old financier took him in hand.

"Robert," he said, "your father and I were friends during his lifetime, and I don't want to see you ruin the great property he built up. But you are starting out well to do it. No one man in the

world can do what you have started out to do—fight the Pennsylvania Railroad with your railroad, fight the Western Union Telegraph Co. with your telegraph company, fight Pullman's Palace Car Co. with your sleeping-car company, and the Adams Express Co. with your express company. My boy—laying his hand affectionately on Bob's shoulder—you are going to ruin yourself. No one concern can hope to make a successful fight against four such corporations as those; they will wreck you!"—New York Press.

It is doubtful if Mr. Field ever made such statements, for he certainly must have known that all of these projects were started by Mr. John W. Garrett, and not by Robert Garrett. The fact of the matter is, the seeds of financial destruction of the B. & O. were planted before Mr. Robert Garrett's presidency, and they are merely bearing fruit now.

A Unique Boycott.

A unique boycott is now on. This closing century of grace has been productive of many remarkable men and measures, some of which have evoked a smile, while others inspired resentment. But Rev. R. B. Garrett, pastor of the First Baptist Church of Chattanooga, has perhaps taken the lead in the matter of the boycott. He has undertaken no less a task than boycotting the Southern Railroad. The Southern Baptist Association convenes in Chattanooga next May. In anticipation of that event, Rev. Mr. Garrett has sent out circulars to all members of the Association, urging them to come to Chattanooga by any other road rather than the Southern, and whenever possible to boycott the road and advise their friends to do so.

Rev. Mr. Garrett asserts in his circular that the Southern road has refused to accord to the Baptists the same courtesies extended the Methodists when the international convention of the Epworth League was held in Chattanooga last year. He also states that the company has refused to give the local committee any passes, and is in every possible way endeavoring to make the Baptist convention a failure.

This is a grave question. Can it be that the Southern Railroad has joined the Methodist Church? Can it be that a great railroad system proposes to discriminate against immersion in favor of sprinkling? Does it set its face against close communion, while it cordially extends its Janney coupler to John Wesley? Think of it!

It is pointed out, however, that the circular is signed by no one but the pastor, and that the other members of the church regret its circulation, regarding it as unjust and vindictive. The milk in the cocoanut seems to be that the company recently refused to grant certain personal courtesies to Mr. Garrett, and he has taken this means to vent his venom. We trust that the Southern Baptist Association will be a great success and that brotherly love, even to the railroads, will be indulged.—Augusta (Ga.) Herald.

The Herald need not worry. Neither the convention nor any of its members can be held responsible for the silly action of one man. The Southern Railway will doubtless carry its full quota of delegates. The Southern, like other roads, may possibly need a little criticism now and then, but this boycotting tomfoolery, whether by a town, by a railroad, by a labor organization or by a preacher, deserves the most vigorous condemnation of every right-minded man.

Railroad Notes.

The passenger agents at New Orleans have organized an association for mutual

benefit. J. Hardy is chairman, and Charles Fricke, secretary.

The Richmond Traction Co., it is stated, has ordered twenty open cars for service on its electric lines.

Charles S. Wight has been appointed freight traffic manager of the Baltimore & Ohio, succeeding Frank Harriott.

A circular has been issued by President H. M. Comer, of the Ocean Steamship Co. and the New England & Savannah Steamship Co., appointing Mr. J. M. Barnard, Jr., general agent of those companies.

Edward L. Palmer, S. R. Tregellas, H. J. McGrath and others have decided to operate a line of steamers in the fruit trade between Baltimore and Bocas del Toro in the United States of Colombia. The capital stock of the company is to be \$50,000.

The Newport News Shipbuilding & Dry-Dock Co. continues to receive the patronage of the American Line of steamships. The St. Paul was recently repaired at Newport News, and the Paris, of the same line, has also been sent there to be overhauled.

It is reported that the Munson Steamship Co., operating vessels between New York and Central America, has determined to extend its service to Mobile, Ala., and to place ships on the route between Mobile and Central America as well. Mr. W. D. Munson has been examining the city's advantages with this end in view.

Mr. John G. Lonsdale has been appointed receiver of the Little Rock, Hot Springs & Texas Railroad. The application for a receiver was made by Johnson & Hansen, contractors, of San Antonio, Texas. They allege that the company is indebted to them in the sum of \$80,000. About \$300,000 has been spent in building the road promoted by Uriah Lott and associates.

The Northern Central Company has re-elected its present officers for the coming year. They are George B. Roberts, president; Frank Thomson, vice-president; John P. Green, second vice-president; Charles E. Pugh, third vice-president; Stephen W. White, secretary; A. W. Hendrix, treasurer. Mr. Roberts offered his resignation as a director, and Mr. A. J. Cassatt, who was formerly vice-president of the Pennsylvania Railroad Co., was elected to the vacancy.

Freight agents of Southern lines will form an association to be known as the Southwestern and Mississippi Valley Freight Rate Committee, which will handle the traffic and average the rates between Kentucky, Tennessee, Mississippi and Louisiana. This territory is not now entered by a traffic association, the Southern Traffic Association operating in a different section. The roads represented are the Louisville & Nashville, Illinois Central, Kansas City, Fort Scott & Memphis, Nashville, Chattanooga & St. Louis, Southern Railway, Memphis & Charleston, Mobile & Ohio, Chesapeake, Ohio & Southwestern and the Cincinnati Southern.

The Elizabethton Co-operative Town Co., of Elizabethton, Tenn., has sold its entire property to Mr. George H. Towle. Mr. Towle undertakes to meet the obligations of the old company and to organize a new one, giving the old stockholders the opportunity to come into the new organization. He and his associates have organized the Watauga Land Co., of Elizabethton, for the purpose of carrying out this undertaking. It is expected that there will be a revival of business interests at that place as a result of this operation.

TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

A \$50,000 Mill for Laurinburg, N. C.

The Morgan Cotton Mills, of Laurinburg, N. C., has been organized with a capital stock of \$50,000, and will make arrangements at once for the erection of the proposed plant. The incorporators will include Messrs. W. D. James, A. L. James, B. Bryant, R. E. Lee and Mark Morgan, and the last named is to be president of the company. The manufacture of hosiery yarn is contemplated. Mr. Morgan is an experienced cotton manufacturer, being president and majority owner of three mills near Laurinburg.

A Bleachery at Augusta.

Messrs. Charles Estes, Fred B. Pope, Thomas G. Barrett, Jr., and Landon Thomas, of Augusta, Ga., have purchased a tract of 1148 acres of land in South Carolina near Augusta, and expect to erect a bleachery in the near future. The property includes a stream of water known as Little Horse creek, which flows through it, and the water of which, upon analysis, was found to be adapted for the purpose of bleaching. The projectors of the enterprise are now applying for a charter to form a bleachery company. This is a very important move, calculated to have a marked influence upon the development of cotton manufacturing in the South.

Co-operative Cotton-Mill Companies.

The comprehensive article by Mr. D. A. Tompkins, of Charlotte, N. C., recently published in the Manufacturers' Record, telling of the success of cotton mills built by co-operation or building-association plan, has attracted wide attention throughout the South. It has stimulated many towns to take up the matter of organizing cotton-mill companies on this basis, and the outcome of this movement will be a decided increase in mills established by local capital. As a sample of many letters the following is given:

Monroe, La., February 29.

Editor Manufacturers' Record:

I would esteem it a favor to this community to have you make mention of the fact that local capitalists in this city are ready to invest \$50,000 in a \$100,000 cotton mill. This resulted from our agitating the question of a mill on the co-operative plan as suggested by Mr. D. A. Tompkins.

D. M. SHOLARS.

Mr. Sholars is an attorney, and it is worth while noting in this connection that all classes of citizens—professional men as well as business men—in the smaller towns of the South are taking an active part in the advancement of industrial interests.

The Position of Cotton.

New York, February 28.

Editor Manufacturers' Record:

The weekly consumption of Europe, of all kinds, according to Ellison, is 182,000 bales of 400 pounds each, and that of United States, Mexico and Canada estimated 50,000 per week of about 480 pounds, of which Southern consumption is 19,000. A conservative estimate, based upon what was in sight on 1st inst. of the world's visible supply, and to come into sight by September 1 next, will show what must provide for about 200,000 bales, weekly consumption, of 480 pounds to the bale. The supply of all kinds, which we estimate at about 6,350,000, would provide for a consumption for thirty-one weeks, from February 1 to August 31, 1896, or 6,200,000 bales, but as

this would mean within 150,000 bales of an entire exhaustion of the world's supply at every visible point in this country and Europe, a little more attention should be given to what is in prospect, unless it can be prevented by a decided curtailment of consumption, of which there is no prospect, except, perhaps, in the New England States to some extent. We have assumed the current crop to be 7,000,000 bales, whereas we expect less. The world's visible supply of all kinds on September 1, 1895, was 2,289,549; in 1894, 1,913,688; in 1893, 2,154,538, and in 1892, 2,582,955. If 1,000,000 bales only as the world's visible on September 1, 1896, should be held on that date, against figures mentioned above, showing an average for the four years of 2,235,182, it would leave available for the world's mills 5,350,000 bales to supply thirty-one weeks' consumption, ending September 1 next, at 200,000 bales weekly; this would be 6,200,000, therefore an impossible situation. Now, as Liverpool alone held on September 1, 1895, 1,094,000, and 858,000 and 905,000 and 1,124,000 for the three previous years, respectively, what would be the position of the contract markets at Liverpool, Havre, New York and New Orleans, and what would be the supply at the remaining cotton ports and interior points in this country, as well as such places as Bremen, Hamburg and other important centres in Europe. Ellison made European mill stocks on the 1st inst. 582,000 bales of 400 pounds each, against 828,000 last year same date. Therefore, no encouragement comes from that direction. What the market may do will depend very much upon the scale of receipts, as well as spot demand by Europe and America for the world's visible supply at the moment, and what may come into sight in the next six months. What may have a deterrent effect, however, greater than has already occurred, might naturally be a confirmation of reports of proposed large increase in acreage and fertilizers. This character of information has, principally, caused the decline of the past few weeks.

ATWOOD VIOLETT & CO.

Water-Power Development and Electric Transmission at Columbus, Ga., for Cotton Mills.

The lands and water rights of the old Rock Island Paper Mill, situated on the Chattahoochee river, one mile north of Columbus, Ga., have been purchased by John Hill, mechanical engineer, of that city. It embraces 147 acres of land in Alabama, which extends along the river shoals for a distance of about 3600 feet, together with a large island of stone across the river gorge, located in Georgia. This island covers about five acres. The water falls in this distance about twenty-four feet. At the low summer stage of the river there is available between 3000 and 4000 horse-power, while at the stage ordinary for ten months of the year the amount is three or four times greater. The stone dam of the paper company, together with a large amount of granite masonry and the tail race, are now intact, just as left after the Federals burned the mill at the close of the war, except a washout of some sixty feet in the dam. The total length of this dam is something over 200 feet, and it crosses the narrowest gorge bed in the river that there exists for a distance of 400 or more miles of its length. It abuts at each end against granite bed-rock hillsides. Plans are now being made for the development of this power, which will be proceeded with as early as the stage of water will permit. The precipitous natural conditions surrounding this fall have heretofore been in the way of its availability, though in ante-bellum days a saw mill

was driven by fall obtained from obstructions in the rapids, and subsequently the Rock Island Paper Mill built the dam and raceway and operated its plant. Electric transmission has now made it entirely practical to fully utilize this great power so cheaply developed.

This fall is the fourth water-level of the Chattahoochee shoals, near Columbus, and is entirely independent of flood or back-water. There is a peculiarity also in regard to it rarely to be found: flood-water is by-passed around it, and low water greatly increases the fall. The first water-level at Columbus is now developed by a stone dam 1000 feet long, and raceway walls, which with some eight or ten acres of ground, cost about \$225,000. The second level, having a low fall, has a dam 800 feet long. The third level is yet undeveloped, and will require a dam 1200 feet long. Then comes the Rock Island level, the fourth, with a 200-foot dam. The fifth level to be developed to any considerable degree will call for a dam 2200 feet long. It will be seen that the fourth level now to be improved demands but a small expenditure to prepare it for water-wheels and power stations, probably not exceeding \$15,000 or \$20,000, the work executed with granite walls and durable head-gates. Imperfect titles heretofore caused this property to be avoided, but these are now entirely clear for the first time in thirty years.

A number of capitalists, some of them manufacturers, have desired to become interested in building a new large modern cotton mill here, to be driven by water power electrically transmitted. Estimates for this transmission are now being made, and it is probable that a cotton mill of about 40,000 spindles will be under way soon after this water-power is ready, and arrangements for further use of the transmission are also under consideration. Power which can be fully developed up to the water-wheels, at a cost of \$6 per horse-power, is not likely to wait for its application. Thus one more great water-power electric development is to be established in the South and one or more large cotton mills in connection with it.

Textile Notes.

Louis de Laeroix, Oxford, Ala., wants addresses of cordage and rope (cotton) factories in the South.

Mr. G. R. Casey, of Adairsville, Ga., is heading a movement for the formation of a company to erect a cotton mill.

There is a movement afoot at Millen, Ga., for the formation of a company to erect a cotton mill, and Mr. W. S. Witham is interested in the project.

Mr. Charles James, Central Hotel, Valdosta, Ga., is negotiating with parties for the removal and establishment of one or more spool cotton mills.

There is a movement at Yorkville, S. C., for the erection of a cotton mill, and Mr. John R. Ashe is said to be at the head of the enterprise.

A movement has been started at Landrum, S. C., for the erection of a cotton mill, and Jacob Carpenter, Joseph Lee and others are interested.

Preparations have already been commenced for the rebuilding of the Swift Creek Cotton Mills, which were burned near Petersburg, Va., last week.

Mr. J. S. White, of Hartsville, S. C., is endeavoring to arrange for the erection of a mill for knitting men's and women's undershirts. Investigations as to equipment, etc., are now being made.

The Birmingham Cotton Factory, of Birmingham, Ala., has put on a night

force, and will operate its plant day and night in order to fill orders. The output will be about doubled by this move and the addition of some new machinery.

There is a report at Jenifer, Ala., that a cotton-mill company is being formed to erect plant near the residence of Col. John H. Wilson, where it is thought a good water-power can be developed.

A movement is afoot at Hickory, N. C., for the erection of a cotton mill, and subscriptions to the amount of \$40,000 have already been secured. Mr. A. A. Shuford is interested in the project, having subscribed \$30,000 of the above amount.

There is some talk of the removal of the Myra Knitting Mills, of Philadelphia, Pa., owned by T. H. Walters, to Cedar-town, Ga. It is contemplated to make improvements if the plant is removed, including the addition of a dyeing plant, manufacture of underwear, etc.

A charter has been issued for a cotton mill at Greenwood, S. C., under the name of the Grendel Mills, with the following incorporators: Messrs. D. A. P. Jordan, W. L. Durst, J. T. Simmons, W. B. Mill-wee, G. A. Barksdale, C. A. C. Waller, J. R. Abney, R. B. Epting and W. E. Henderson.

Gensburger Bros., of Louisiana, Mo., recently reported as to establish a woolen mill, have done so, commenced operations and incorporated the Pike County Woolen Manufacturing Co. to conduct the business. The incorporators are Michael and Henry Gensburger and Elias Frank, and the capital stock is \$11,200.

The new Louise Yarn Mill, of Charlotte, N. C., mentioned last week, has elected officers as follows: H. S. Chadwick, president; W. S. Mallory, treasurer, and C. Dowd, J. H. Sloan, D. E. Allen, H. S. Chadwick, J. G. Bryce, W. S. Mallory and J. P. Wilson, directors. Plans for the 5000-spindle mill will be prepared in the near future and work on the buildings commenced.

Messrs. Wm. J. Dickey & Sons, of Gella, Md., are making more improvements to their woolen mill so as to increase the product. Forty-five new kersey looms are to be added to the present equipment, and a building on the company's property is being altered to receive the machinery. About 400 operatives will be employed when all the improvements are completed.

The stockholders of the Cherryville Manufacturing Co., of Cherryville, N. C., held their annual meeting on the 4th ult. Reports of the officers were read and showed the affairs of the company to be in good condition. A creditable surplus is on hand. All the old officers were re-elected, namely: D. Mauney, president; W. A. Mauney, vice-president, and J. M. Rhodes, secretary-treasurer.

The Crawford Woolen Mills Co., of Martinsburg, W. Va., held their annual meeting last week, and elected Mr. W. H. Crawford, president; T. L. Dunn, vice-president; M. F. Crawford, treasurer, and U. S. G. Pitzer, secretary. The plant has recently been improved considerably and is now employing about 100 hands. Orders are said to be on hand until December for the entire output.

A largely attended meeting of the parties interested in the proposed cotton mill at Beaufort, S. C., was held February 29, and the organization was perfected by the selection of Messrs. F. W. Scheper, N. Christenson, Chas. E. Danner, John N. Wallace, George Holmes and others as directors. About \$50,000 have been subscribed to the stock, and considerable more is assured, making the success of the project about assured.

COTTONSEED OIL.

This department is open for the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

The Market for Cottonseed Products.

New York, March 3.

A fair volume of exports characterized the week's trading, but no perceptible change is apparent with regard to values, the business referred to not having appreciably strengthened the position. A retrospective glance, viewed in conjunction with the conditions which currently obtain, would indicate that the waiting attitude persistently prolonged by purchasers have to a certain extent triumphed. Clearly their ability to await favoring market developments exceeded that of certain holders and producers, whose necessities rendered marketing of stocks unavoidable; hence the decline. Other factors, too, have exerted a controlling influence in bringing about the undesirable trade features of the hour. Chicago receipts of grain largely exceeding the estimate, marketed at a comparatively low price, impart a bearish aspect to the already depressed lard market. Lard is quotably lower than a week ago, primarily due to the increased volume of hog receipts. May option, Chicago, is quoted 5.70 cents, while a firmer tone obtains at the close, with an upward tendency. Compound lard is quoted at 4½ to 4¾ cents, according to quality. London and Liverpool crude oil are quoted at 14s. 9d., and refined at 16s. 9d. to 17s. 6d. per 112 pounds, according to make and package. It will be seen that cheap animal fats and competition with low-priced English-made oil in distributing centres abroad conjointly exert a baneful influence on the respective values of the various grades. A cessation of English crushing operations, which will shortly ensue, will remove an existing drawback to the export phase of the business. The South is firm in its views with regard to value of oil stocks, and sales even at quoted figures are comparatively scarce. Sales of crude in barrels have been effected at 21 cents, while the best bid for April delivery, prime yellow, is 25 cents. Good off yellow is scarce, and is quoted nominally at 25 cents, while the prime variety is held at 25½ cents. Southern Europe has purchased a considerable quantity of choice oil for edible purposes, but the divergent views of holder and purchaser have retarded operations, and, notwithstanding the reign of extraordinary low prices, but little interest is evinced by the latter as the representatives of whatever consuming centres abroad. Spot freight quotations are for Liverpool 2s., Antwerp 2s. 6d., Hamburg 75 pfgs. per 100 pounds, 20 cents per 100 pounds to Havre and 17s. 6d. per barrel to Marseilles. Latest advices from Southern points announce the existence of a disquieting sentiment by reason of the prolonged dullness, in view of the rapidly-advancing season. Sales aggregating several thousand barrels of prime yellow, chiefly at 25 cents, were effected, and 1000 barrels of off yellow at 24½ cents. The closing prices are as follows: 21½ to 22 cents for prime crude, and 19 to 20 cents for the off variety; prime yellow, 25 to 26 cents; butter oil, 27 to 28 cents; off yellow, 25 cents; white oil, 27 to 29 cents, and soap stock, ¾c. per pound.

Cake and Meal.—The market is unaltered. Consignments aggregating 2000 tons are reported from New Orleans. Liverpool cables sales of American cake arrivals at £4 18s. 9d. per ton ex-quay. Receipts at this market comprise 4500 bags cake and 1000 bags cottonseed ashes.

Cottonseed-Oil Notes.

The foreign shipments of cottonseed oil-cake from Baltimore during the month of February amounted to 2145 tons.

The exports of cottonseed products from the port of Galveston, Texas, for the month of February were as follows: 41,237 sacks cottonseed oilcake, 90,850 sacks of cottonseed meal and 1140 barrels of cottonseed oil.

Fire broke out on the 1st inst. in the forward hold of the British steamship *Capella*, which was to have sailed on the 3d inst. She had on board 600 tons of cottonseed oilcake, 300 tons of cottonseed and 5000 bales of cotton, besides other merchandise. The damage is estimated at \$25,000; insured.

The American Manufacturing & Export Co. will in about two weeks commence the delinting of cottonseed at Wilmington, N. C. The machinery of the plant has been tested, and is said to be mechanically perfect. The machines for this company were built by the Nordyke & Marmon Co., of Indianapolis, Ind. Each machine will delint ten tons of cottonseed per day. The headquarters of the company are at Atlanta, Ga., and the officers are as follows: President, O. T. Bugg, of Atlanta; vice-president, G. H. Yancey, of Athens, Ga.; secretary, F. K. Jones, of Baltimore; treasurer, W. F. Churchman, of Indianapolis.

The tone of the market for cottonseed products at Houston and other Texas points is very strong for meal and cake. Quotations are now \$13 to \$15 per ton f. o. b. mills at interior points, according to location. The export demand has been very active recently for these products, and stocks have been much depleted. The oil market, on the other hand, is weak, and has declined a cent on nearly all grades during the past week. Stocks at all the mills are said to be large, and manufacturers have been holding for higher prices. It is stated that the output this season will be fully 50 per cent. short of last year. At the close choice crude and strictly prime crude oil are quoted at 17½ to 18 cents per gallon, and prime crude 17 to 17½ cents per gallon.

The market for cottonseed products in New Orleans is quiet and unchanged. Prime crude oil in bulk, 18 cents; prime summer yellow in barrels, 24 cents; meal, \$17.25; cake, \$17.25 per short ton. Receivers' prices are quoted as follows: Cottonseed, \$10 per ton (2000 pounds) delivered net to the mills; cottonseed meal jobbing at depot, \$17 to 17.50 per short ton, \$18.50 to \$19 per long ton for export f. o. b.; cottonseed oil, 22 to 22½ cents per gallon for strictly prime crude; in bulk, 19½ to 20 cents, and 25½ to 26 cents for refined oil at wholesale or for shipment; oilcake, \$18.50 to \$19 per long ton f. o. b.; foots, 1 to 1½ cents; linters, 4¼ to 4½ cents, according to style and staple; hulls delivered at 20 to 25 cents per 100 pounds, according to location of mills.

A meeting of the managing committee of the Baltimore Lumber Exchange was held on Monday last at the Builders' Exchange. The principal business under consideration was the consolidation with the Corn and Flour Exchange. The president was authorized to call a special meeting to take action upon the proposition. Mr. R. W. Price presided, and Mr. Charles D. Stran acted as secretary.

Mr. W. W. Rulifson, Mountain Lake, Md., in a letter to the Manufacturers' Record, says: "The Manufacturers' Record brought us from Western New York to Maryland. We recognize the value of the Manufacturers' Record, and every business man of the South should subscribe for it."

PHOSPHATES.

Phosphate Markets.

Office Manufacturers' Record.

Baltimore, Md., March 5.

A quiet and uninteresting market has been the rule during the past week, with the volume of business in phosphate rock exceedingly light. The market is nominally steady and offerings moderate. Florida pebble is reported to have been offered at 8 cents a unit for 70 per cent., and 7½ cents for 60 per cent. Last sales, however, were made at 8½ cents for 70 per cent., and holders are generally firm in their views. The market in Charleston, S. C., has ruled quiet during the past week, and shipments were very light. The tone, however, is reported firm, with crude rock \$3 at the mines; hot-air-dried \$3.25 f. o. b. vessel in Ashley river, \$3.45 f. o. b. city. Ground rock in bulk is quoted at \$5.50 f. o. b. vessel at city. The movement in Florida is unchanged, and the market nominally firm, with shipments from the ports lighter than usual for the month of February. The arrivals in the local market during the past week were the schooners *Mary Lee Patten*, from Ashley River, S. C., with 900 tons, and the *James Beecher*, from Port Tampa, Fla., with 1600 tons. The receipts at this port for the month of February were 3165 tons of South Carolina rock and 4333 tons of Florida, making a total of 8098 tons, against 4206 tons for the corresponding month in 1895. The phosphate charters reported last week in New York were as follows: A schooner, 555 tons, from Charlotte Harbor to New Orleans at \$1.75; a schooner, 565 tons, from Ashley River to Philadelphia at \$2; a schooner, 373 tons, New York to Portsmouth, Va., with fertilizer at 80 cents; a British steamer, 1384 tons, from Tampa to Helsingborg at 17; a British steamer, 1294 tons, from a Southern port to the United Kingdom or Continent on private terms, and a British steamer, 1349 tons, from Port Royal to the United Kingdom on private terms.

Fertilizer Ingredients.

The local market has ruled firm during the week, with a fair demand for ammoniates. There is a disposition to advance prices, but there is not enough current inquiry to sustain any decided change in quotations. Messrs. Thos. H. White & Co., in their February circular, say: "The market for ammoniates the past month has been without material change. A fairly active Southern demand has been met freely, and only a small advance in quotations has been scored." Ground blood is still quoted \$1.50 per unit Kansas City and Chicago, and concentrated tankage \$1.35 to \$1.40 f. o. b. Kansas City and Chicago.

The following table represents the prices current at this date:

Sulphate of ammonia, gas....	\$2 40@	—
Sulphate of ammonia, bone....	2 30@	2 40
Nitrate of soda.....	1 80@	1 85
Blood meal.....	1 70@	—
Blood.....	1 80@	—
Azotine (beef).....	1 70@	—
Azotine (pork).....	1 75@	—
Tankage (concentrated).....	1 70@	—
Tankage (9 and 20).....	1 65 and 10	—
Tankage (7 and 30).....	17 00@	17 50
Fish (dry).....	20 50@	—
Fish (fatted).....	12 00@	—

Phosphate and Fertilizer Notes.

The schooner *John K. Souther* arrived at Port Tampa, Fla., on the 28th ult. from Mantanzas, and will load a cargo of phosphate.

The British steamship *Nymphae*, from Fernandina with 2400 tons of phosphate rock for Stettin, Germany, arrived at Newport News on Monday last to finish loading cargo.

The steamship *Nymphae* cleared from Fernandina on the 24th ult. for Stettin, Germany, with 2450 tons of phosphate, and the British steamship *Neosian* was in

port on the 27th taking a cargo of phosphate for the Florida syndicate.

The only shipment of phosphate reported at the port of Punta Gorda, Fla., was that of the schooner *Oliver Pecker* with 1170 tons for New Orleans from the Peace River Phosphate Co.

The Hull Phosphate Co., near Fort Ogden, Fla., is mining on full time, and is loading a vessel in Charlotte Harbor and delivering the rock over the new line of railroad by way of Liverpool.

The British steamship *Graffoe* arrived at Baltimore on the 27th ult. with a cargo of 33,413 bags of nitrate of soda from the ports of Iquiqui and Junin in Peru. The *Graffoe* discharged about 1200 tons of nitrate at Baltimore and finished at Philadelphia and New York.

It is stated that a number of options are being secured on the clay lands in Marion county, Florida, by speculators in Ocala. Large deposits of this clay or fuller's earth are said to exist in the above county, and it is claimed that large sums have been deposited in bank to secure options on fuller's earth lands.

It is stated that Mr. B. Arentz has about consummated the purchase of the York phosphate mines eight miles west of Ocala, Fla., for his foreign syndicate. The property is connected with the Florida Central & Peninsular Railroad by a tramway, and several cargoes of rock have been shipped from the mines. Messrs. B. Arentz & Co. will start up the mine at once.

The phosphate shipments from Fernandina, Fla., were light during the month of February, the following cargoes being reported: Steamship *Bengore Head* for Rotterdam with 1850 tons; steamship *Sicilian* for Ghent, Belgium, with 1550 tons; steamship *Nymphae* for Stettin, Germany, with 2450 tons; steamship *Neosian* for Memel, Germany, with 1550 tons—total 7400 tons.

West Virginia Coal Output.

The annual report of the State mining inspector for the first district of West Virginia is extremely interesting in its details. It embraces ten of the counties of the State. The following table shows the production of coal and coke by counties in the first district:

Counties.	Coal, Tons.	Coke, Tons.
Brooke	50,013
Harrison	204,442	4,418
Marion	1,198,336	126,194
Marshall	137,763
Mineral	614,780
Monongalia	47,653	21,792
Ohio	88,691
Preston	52,385	18,473
Taylor	86,536	5,936
Tucker	316,345	71,620
Total	2,796,944	248,433

The production of coal for the previous year was 2,714,818 tons, showing an increase of 82,126 tons for the year ending June 30, 1895. There is an increase of coke for the present year of 40,287 tons.

Sale of Coal Lands.

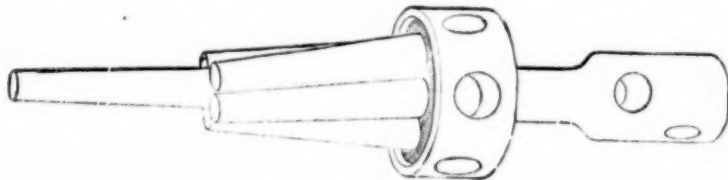
The Manufacturers' Record learns that negotiations for the sale of a large tract of coal land in West Virginia to Messrs. Morton, Bliss & Co., Hon. Abram S. Hewitt and other New York parties are about to be closed successfully. The property includes 25,000 acres in Fayette county, bordering on Loup creek. It is owned by Messrs. John A. Hambleton, John E. Hurst and Charles Markell, trustees.

Mr. M. V. Richards, land and immigration agent of the Southern Railroad Co., has issued a German edition of "The Southern Field," the paper published by that company in the interest of immigration to the territory tributary to its lines.

MECHANICAL.

Johnson Tube Expander.

A device that is regarded as a distinct advance in flue-expanding equipment is the Johnson self-feeding and self-releasing tube-expander, illustrated on this page. Like many other important inventions, this tool is simple in construction and wonderfully efficient in operation. Throwing the small rollers out of parallel with the centre-pin, as shown in the illustration, which is done by slightly shifting the cap in the direction which the tool is to be worked, puts the tool in position to feed in by turning the mandril by means of the hand-bar. Half a dozen turns, and a flue is expanded as



JOHNSON TUBE EXPANDER.

tightly as is possible to make it, and the workman knows just when to stop to have a perfect job. The flue is crowded down upon both sides of the sheet so evenly and smoothly that the joint is perfect in every way and no ridge is formed in the flue. Reversing the mandril loosens the tool and it drops out of the flue. As a hammer is never used in forcing this expander in or out, and as the roller bearings are all of great length, the tool wears indefinitely, and this feature is of great economy, as all users of expanders understand. There is also a saving of one-half in time.

This tool is manufactured by the Johnson Tool Co., of Wilkesbarre, Pa., and the firm is arranging for representatives in all the principal trade centres of the United States. Among those now ac-

an engine which is as near perfection as possible, both in detail and general construction. Success in carrying out this policy is attested by the fact that engines have been placed in all parts of the United States, with many cases where from five to a dozen are used by single firms. During twenty-five years improvements have been frequently made, and the engines of today show a great advance over the old type, especially in respect to the valve motion. The former wrist-plate motion, with its sleeve-rod, has been supplanted by a still more effective and much simpler cam wrist-plate motion for actuating the steam valves. It reduces the travel of the valves one-half, and moves but one valve at a time, requiring, however, no change in the long used perfectly-balanced ex-

pansible double-ported valves, except in reduction by one-half of their length and weight.

The simplicity of this improved valve motion, with its dozens of less pieces, as well as of the general construction of the engine, are features. Full recognition, however, is given to the fact that simplicity of parts must not in any way be at the expense of economy in the use of fuel.

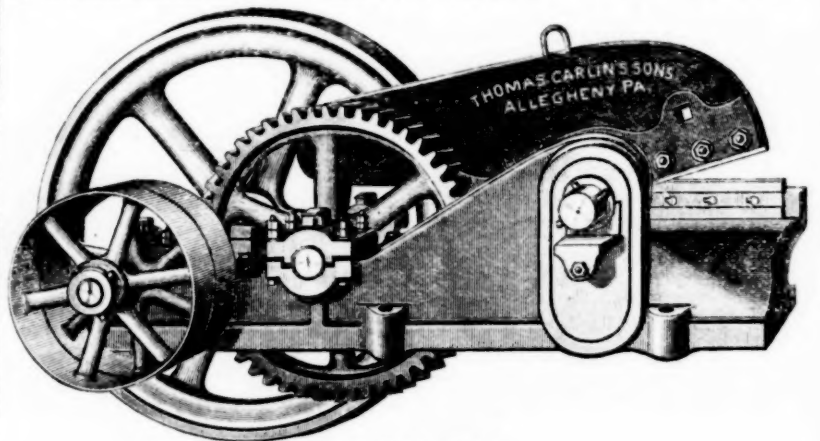
The wrist-pin, or cam-roller, actuating the steam valves travels in the concentric slot of the cam, as shown by the cut herewith, without moving it during more than half of the pin's travel, then gradually starting the valve until its lip edge reaches the edge of the port, when, by the special form given the cam slot, the valve is thrown open suddenly, remaining open till point of cut-off, and then as suddenly

ures which to many are objectionable, such as missing of dash pots, clicking of catching and releasing devices, etc.

The Fitchburg engine is being satisfactorily and noiselessly run with this valve motion at any speed wished, from seventy to 200 revolutions. Experience has shown that reasonably high speed is in the line of better steam economy, it having been proved that the old custom of excessively long stroke and slow speed caused serious and unnecessary loss by condensation of steam, and there has followed a shortening of stroke with an increased amount of

burst fly-wheels because of engines running away. As there is but the slightest movement to any of its parts, its durability and effectiveness are evident.

The close regulation of a high-speed engine is obtained, together with the advantages of a low speed in small clearances, independently adjustable valves, constant compression and exhaust release. There is also easy possibility of a great increase in rotative speed if desired, because of the positive motion of the new cam wrist-plate. Long use shows no wear upon the moving parts of this valve motion, the



NEW PITMAN SHEAR.

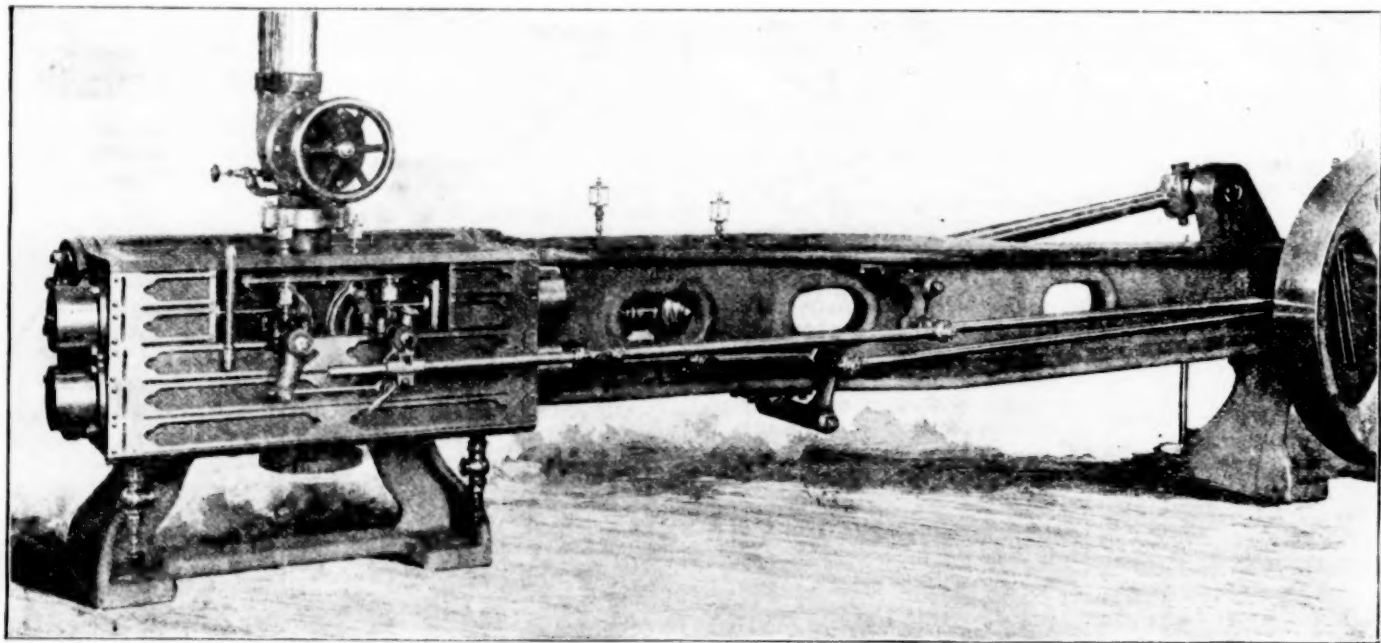
revolutions. Two eccentrics are used for driving the independent steam and exhaust valves. All valves, being perfectly balanced, thus save from 5 to 15 per cent. of steam, and are said to be so expandable as to take up all wear for twenty-five years without expense. Being double-ported, they give double opportunity for admission of steam with a given travel that is usually obtained, and thus the equivalent of a multiported gridiron valve, securing the full steam pressure in cylinder that the steam pipe will allow and holding it to cut-off. The steam inlet valves are worked direct by the cam

work upon them being so very light.

Any further information will be given by the company at Fitchburg, or at the Philadelphia office, Mutual Life Building, or New York office, Havemeyer Building.

New Pitman Shear.

A new shear which is of late becoming widely used in rolling mills, steel works, etc., is illustrated herewith. High speed is one of the features of this tool, which is of the pitman type, designed for rapid work. The bedplate is deeper than usual, and has wrought-iron links shrunk on housing, five-inch steel pin being used,



THE FITCHBURG ENGINE.

tively engaged in developing the trade are Manning, Maxwell & Moore, New York; Henry C. Ayer, 919 Betz Building, Philadelphia; George M. Scott & Co., Salt Lake City, Utah. All sizes of expanders, from one to four inches, are carried in stock for prompt shipment, and special tools are made to order on short notice. Prices are about the same as for any standard roller tube-expanders.

The Fitchburg Engine.

It is, and has always been, the aim of the Fitchburg Steam Engine Co., of Fitchburg, Mass., to put on the market

closed, thus opening and closing the port swiftly, the valves traveling only as far as is necessary to fully open the ports and return to their rest; the valves at either end acting alternately, one remaining still while the other is moving. The point of cut-off is automatically varied from nothing up to two-thirds of stroke, with absolutely even speed.

The quick movement of valves in opening and closing the ports, with the double ports in the valves, gives, it is said, as clean admission and cut-off as is obtained by the best releasing valve-gears, without any complication of parts and other feat-

wrist-plate, and this motion has been so simplified and the actual travel of the valves so reduced that the governor has really no work but to care for its special duty of keeping the speed of engine constant, no matter how suddenly or much the load may change, if within the capacity of the engine.

The governor is fastened to the crank-shaft, and is therefore a part of the shaft and engine, making it, it is claimed, impossible for the engine to run away or for the governor to become detached, a consideration of the highest importance in view of the awful consequences of

with a forged steel centre crank four inches diameter, gearing about four and one-half to 16-inch face, two-and-one-quarter-inch pitch, pinion having a double shroud and keyed to three-inch shaft. Fly-wheel is four and one-half feet diameter, with well-proportioned arms. Tight and loose driving pulleys twenty-four inches diameter, eight-inch face. The knives are made so as to have four cutting edges. This machine weighs 11,500 pounds. Shears of this type are made from 3000 pounds up to and including a rail shear weighing 40,000 pounds, and all sizes can be furnished with engine

attached. Thomas Carlin's Sons, Allegheny, Pa., are the builders.

Spray Pump Agitators.

Fruit-growers and gardeners are interested in the perfection of machinery used in preventing the ravages of funguous diseases in plants. Spraying fruits, trees, vines, shrubs, etc., has been proven to be an effective means of prevention. In applying prepared liquids in this form the usefulness of an agitator is readily apparent.

The commonest arsenites, such as Paris green and London purple, are insoluble in water, and, having a greater specific gravity, i. e., being heavier than water, will naturally sink to the bottom of the barrel. When so settled and pumped there is constant danger of the spray nozzle becoming clogged, and what is more important, of the blossoms and leaves being burned by an excessive strength of the spraying fluid.

Agitators, so-called, returning a portion of the liquid pumped to the barrel through delivery pipes or hose have not proven satisfactory, for as pumping is discontinued in passing from one row of trees to another, the poisons settle rapidly, and to ensure any measure of circulation at the bottom of the barrel a large discharge must be secured, this involving considerable extra labor in pumping.



SPRAY PUMP AGITATORS.

Dash agitators of positive operation are considered open to the objection that while the first few strokes of the pump lever may work the paddle satisfactorily, yet as pressure is increased the stroking becomes naturally shorter (or only sufficient to sustain necessary pressure), and the effectiveness of the dash paddle as an agitator correspondingly lessened.

The illustration herewith shows the Independent revolving agitator designed to meet all conditions of such service. Power is transmitted through a small pair of bevel gears to a paddle wheel, comprising four arms set at such an angle that as the wheel revolves the liquid is carried both around and upwards in the barrel, thus insuring thorough agitation of the entire contents of the barrel. The operation of this is not dependent upon, but independent of the pump. Thus in passing from one row of trees to another (and while it is not required to operate the pump) the Independent agitator can be employed to thoroughly agitate the spraying liquid in the barrel. In this manner no extra labor is involved at time of operating pump and the full effective force and discharge of pump is given, as it should be, to the work of spraying.

This device is made by the Goulds Manufacturing Co., Seneca Falls, N. Y.

FINANCIAL NEWS.

Baltimoreans Buying Bonds.

Baltimore capitalists realize the value of Southern securities, as is indicated by these transactions:

The city of Union Springs, Ala., has sold to R. B. Sperry & Co., of Baltimore, \$30,000 water-works 6 per cent. 30-year gold bonds.

The city of Dublin, Ga., has sold to the same firm \$25,000 6 per cent. 30-year gold bonds.

Messrs. Sperry & Co. are extensive and experienced dealers in Southern securities.

Official Bank Changes.

First National Bank of Gainesville, Texas—D. T. Lacy, president; W. H. Dougherty, vice-president.

National Exchange Bank of Lynchburg, Va.—J. W. Watts, president; Geo. M. Jones, vice-president.

Madison National Bank of Richmond, Va.—N. B. Deatherage, vice-president.

First National Bank of Mayfield, Ky.—H. S. Hale, president; N. A. Hale, cashier.

First National Bank of Owensboro, Ky. Robert Brodie, vice-president.

National Marine Bank of Baltimore, Md.—Geo. R. Vickers, Jr., vice-president.

New Corporations.

T. J. Fairfield and others are preparing to open a new bank at Milledgeville, Ga.

Business men at Biloxi, Miss., have raised \$25,000 in stock subscriptions for another bank at that place.

An effort is being made to organize a new bank at Suffolk, Va. J. H. Macleury and others are reported as interested.

The Merchants and Farmers' Bank at Eastman, Ga., has been opened for business. James Bishop has been elected president by the directors.

The Employer Building and Loan Association of Kansas City has been formed with capital stock \$250,000. Incorporators include R. E. Kirtley and A. B. Olson.

The Texas Trust Co. has been organized at Austin, Texas, with \$60,000 capital. The directors are James R. Wiley, Grand Rapids, Mich.; Wm. D. Williams, Fort Worth; F. W. Carothers, Georgetown; W. E. Hall, Temple; W. S. Belcher, D. W. Doon and Guy A. Collett, all of Austin.

The bank recently opened at Rome, Ga., is termed the Exchange Bank. Its capital is \$100,000. The board of directors are W. P. Simpson, I. D. Ford, J. A. Glover, C. A. Hight, A. R. Sullivan; and the officers are: President, W. P. Simpson; vice-president, I. D. Ford; cashier, T. J. Simpson.

Articles of incorporation of the Citizens' Bank of Junction City, Ark., have been filed with the secretary of state; capital stock \$40,000. The incorporators are E. H. Smith, A. L. Alphine, D. E. Armstrong, A. J. Jones, Puryear Muse, A. H. Henderson, John Tyson and A. B. Hester. E. H. Smith is president, and J. D. Proctor, cashier.

The Income, Security & Trust Co. has been formed at Baltimore by Martin Meyerlinck, Ernest Schmeisser, Gebhard Leimbach, Alexander Schulz, Peter Gustavus, John H. Knoop, John C. Distler, Jr., Herman H. Hobelman, Wm. G. Atkinson and A. D. R. Sappington. The capital stock is \$50,000, divided into shares of \$100 each, and may be increased to \$500,000.

Members of the Knights of Pythias in Baltimore have organized the Fraternal Trust & Banking Co., to do the kind of

business indicated by its title. Among those interested are George W. Lindsay, Stephen R. Mason, James Whitehouse, Lewis Reitz, John D. Blake, S. P. Tustin, Clarendon I. T. Gould, Garry Brown, John T. Schwartz, Geo. B. Skinner, Alfred T. Schultz, Wm. M. Byrne, John J. Kahler, Edwin T. Daneker and James Young. The capital stock is to be \$100,000.

New Securities.

The city of Enfauila, Ala., will issue bonds to the amount of \$75,000 for water works, sewerage and an electric-light plant.

Lee county, Alabama, will issue bonds for \$25,000 to erect courthouse. W. C. Robinson, probate judge, may be addressed at Opelika, Ala.

Messrs. A. M. Thrasher, A. C. Martin and D. L. Way will receive bids for the proposed issue of Sanford, Fla., bonds until April 14. The issue is \$45,000 in 6 per cents.

The board of supervisors of Surry county, Virginia, will receive bids for \$50,000 worth of 6 per cent. courthouse bonds until March 18. Their address is Surry, Va.

Interest and Dividends.

Interest payments due in Baltimore March 1 were on bonds of the Baltimore Traction Co. (6 per cent. improvement) and the Lake Roland Elevated Railway Co.

Iron Markets.

Cincinnati, February 29.

"Comparisons are odious," Shakespeare said, but it is necessary during the present quiet season to compare the condition of the iron trade with the record of one year ago, in order to draw comfort. There is no denying the fact that the past week has been a dull one, and a majority of consumers have shown a marked lack of interest. Aside from a very limited number of orders from large buyers, nothing has transpired worthy of note.

In spite of the fact that cost of Northern iron is likely to be higher during the coming season, the furnaces in that district are invading the territory usually occupied by Alabama brands and are under-quoting them. This is leading to a feeling of uneasiness on the part of Southern producers, and it is likely that they will take steps to protect themselves.

Prices are nominally unchanged. Some furnaces are quietly making quotations low enough to get business, but, as a rule, they are trying to tide over the present, hoping that during March and April a large demand will spring up sufficient to tax the capacity of all furnaces now in operation.

We quote for cash f. o. b. cars Cincinnati:

Southern coke No. 1 foundry	\$11 50	\$11 75
Southern coke No. 2 foundry	10 75	11 25
No. 1 soft	10 75	11 00
Lake Superior coke No. 1	13 00	13 50
Lake Superior coke No. 2	12 00	12 50
Hanging Rock charcoal No. 1	16 00	17 00
Tennessee charcoal No. 1	13 50	14 00
Jackson county silvery No. 1	14 00	14 50
Southern coke, gray forge	10 00	10 25
Southern coke, mottled	9 75	10 00
Standard Alabama car-wheel	15 75	16 25
Tennessee car-wheel	14 50	15 00
Lake Sup. car-wheel & malle	15 75	16 25

We quote for cash f. o. b. Philadelphia:

No. 1 X standard Alabama	\$12 75
No. 2 X standard Alabama	12 25
No. 1 X standard Virginia	12 50
No. 2 X standard Virginia	12 25
No. 1 X lake ore iron	15 00
No. 2 X lake ore iron	14 50
Lake Superior charcoal	17 00
Standard Georgia charcoal	17 50

Chicago, February 29.

There have been some closely contested sales during the past week, and fair sized orders have been placed for Northern and Southern irons.

The largest Southern producer remains firm at prices recently ruling, but in all other directions, both North and South,

a weakness has been apparent, and the lowest prices have been made since those ruling one year ago.

The much talked of high priced ore and higher priced coke does not prevent either local or Southern producers making out prices when desirable business is offered.

Lake Superior coke No. 1 fdy.	\$12 50
Lake Superior coke No. 2 fdy.	12 00
Lake Sup. charcoal Nos. 1 to 6	14 00
Ohio Scotch No. 1	15 00
Jackson Co., O., silvery No. 1	14 50
Alabama silvery No. 1	12 85
Southern coke No. 1 foundry	11 85
Southern coke No. 2	11 70
Southern coke No. 3	11 60
Southern coke No. 1 S.	11 85
Southern coke No. 2 S.	11 60
Mantle	13 50

New York, February 29.

A steady improvement is noted in the general financial and commercial situation. Money is easier; railroad earnings continue to improve; unsettling war talk is past; confidence grows, slowly, perhaps, but it grows. But there is no such improvement in the pig-iron market as one might be led to expect from above conditions. A good many New England foundries report business very dull. Others, again, are well employed. The few rolling mills in this district are doing well. All parties expect good business later on, but there is no disposition to discount the future in the placing of orders for material. It is believed that March will see more marked improvement. Prices are maintained without quotable change, but concessions are made by furnaces needing money. No large orders of any kind are reported from seaboard points during the week.

We quote for cash f. o. b. docks:

No. 1 X standard Southern	\$12 75
No. 1 X choice Virginia, such as Shenandoah	12 75
No. 2 X Alabama or Virginia	12 25
No. 1 soft Ala. or Virginia	12 25
No. 1 X lake ore coke iron	14 50
No. 2 X lake ore coke iron	14 00
Lake Superior charcoal	17 00

St. Louis, February 29.

A rather quiet market prevailed during the past week. Inquiries were sufficient to keep sellers interested, and numerous small orders for early shipment were placed.

The demand for Lake Superior charcoal resulted in sales of about 1000 tons to local consumers. Southern irons are a trifle weaker, although the leading companies are holding firm to recent fixed prices.

We quote for cash f. o. b. St. Louis:

Southern coke No. 1	\$12 25
Southern coke No. 2	11 75
Southern coke No. 3	11 25
Southern gray forge	10 75
Southern charcoal No. 1	15 00
Ohio softeners	16 00
Lake Superior car-wheel	15 00
Southern car-wheel	16 25
Genuine Connellsville coke	5 75
West Virginia coke	5 00

ROGERS, BROWN & CO.

The large plant of the Van Winkle Gin & Machinery Co., at Atlanta, Ga., has passed out of the hands of a receiver, and all its indebtedness has been settled in full. The interest of Mr. W. W. Boyd in the concern has been purchased by Mr. E. Van Winkle, and arrangements have been completed for putting in operation the new plant of the old company. During the past year Messrs. Van Winkle and Meli R. Wilkinson have been conducting the business in a temporary plant, which they will now abandon. The new concern will be known as the E. Van Winkle Gin and Machinery Works, for which a charter has been applied for, the incorporators being Messrs. E. Van Winkle, E. P. McBurney and Meli R. Wilkinson, who has been general manager of the old organization for some time. The capital stock is placed at \$100,000, with privilege of increasing to \$500,000.

I take great pleasure in reading the Manufacturers' Record each week, and think it has done great good for the South.—W. B. Johnson, Palestine, Texas.

LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

Lumber Directory.

Readers of the Manufacturers' Record who may be in the market for lumber of any description are recommended to the directory of Southern lumber manufacturers and dealers which appears among the advertising pages.

LUMBER MARKET REVIEWS.

Baltimore.

Office Manufacturers' Record,
Baltimore, Md., March 5.

The local lumber market has been quiet, with no increase in the volume of trade. The local demand is confined merely to satisfying the immediate wants of dealers and others, and there is no disposition to increase stocks. Receipts of yellow pine are about as usual, and stocks on hand are ample for all requirements. The demand for air-dried material is light, and box-makers and planing mills are buying only small lots. There is some demand for kiln-dried yellow pine, and some out-of-town buyers are largely in the market. In white pine there has been a better movement, and prices for all desirable material are very steady. In hardwoods the local demand is light, manufacturers and others being out of the market except for small lots for present purposes. There is some demand from out of town, but the general market has ruled quiet. The export demand is unchanged. During the month of February the exports reported from Baltimore were 2,035,000 feet of lumber, 145,000 staves and 4187 logs of wood. Planing mills here are working along, but only on half or three-quarter time, while box-makers and other woodworking concerns are not fully employed. A meeting of the managing committee of the Baltimore Lumber Exchange was held on Monday last to consider the advisability of consolidating with the Corn and Flour Exchange. After some discussion the president was authorized to call a special meeting to pass finally upon the proposition.

The following list represents the prices current at this date:

[The quotations for yellow pine are for cargo lots, and for all hardwoods the figures indicate values for choice car lots.]

VIRGINIA AND NORTH CAROLINA PINE			
5-4x10 No. 2, kiln dried.....	16 00	18 00	00
5-4x12 No. 2, kiln dried.....	17 50	18 50	00
4-4x12 No. 1, kiln dried.....	15 50	16 00	00
4-4x12 No. 1, kiln dried.....	16 50	17 00	00
4-4 wide edge, No. 1, kiln dried.....	13 00	14 00	00
4-4 No. 1 edge floor, air dried.....	23 00	24 00	00
4-4 No. 2 edge floor, air dried.....	13 50	14 50	00
4-4 No. 1 12-in. stock, air dried.....	14 50	15 50	00
4-4 No. 2 12-in. stock.....	12 50	13 50	00
4-4 edge box or rough wide.....	8 00	9 00	00
4-4 edge box do. (narrow).....	7 50	8 50	00
4-4 12-in. or rough wide.....	6 50	7 50	00
3/4 narrow edge.....	6 50	7 50	00
3/4 wide.....	7 50	8 50	00
3/4 10-in. wide.....	8 00	9 00	00
Small joists, 2 1/2-12, 14 and 16 long.....	8 50	9 00	00
Large joists, 3-16 long & up.....	9 00	10 00	00
Scantling, 2x3-16 and up.....	8 00	9 00	00

WHITE PINE.

1st and 2d clear, 4-4, 5-4, 6-4 & 8-4.....	48 50	50 50
3d clear, 4-4, 5-4, 6-4 and 8-4.....	43 50	44 50
Good edge culls.....	14 50	15 50
Good stock.....	16 50	17 50

CYPRESS.

4-4x6, No. 1.....	20 00	21 00
4-4x6, No. 2.....	14 50	15 50
4-4x6, 16 feet, fencing.....	12 50	13 50
4-4x6, rough.....	9 50	10 50
4-4 rough edge.....	9 50	10 00
4-4 edge, No. 1.....	18 50	19 50
4-4 edge, No. 2.....	12 00	13 00
Gulf, 4-4, Nos. 1 and 2.....	28 50	30 50
Gulf, 6-4, Nos. 1 and 2.....	31 50	32 50

HARDWOODS—WALNUT.

5-8, Nos. 1 and 2.....	65 00	75 00
5-8, Nos. 1 and 2.....	80 00	90 00
5-4, 6-4 and 8-4.....	85 00	95 00
Newell stuff, clear of heart.....	85 00	100 00
Culls.....	20 00	30 00

OAK.

Cabinet, white and red, Southern, plain-sawn and good, 1 and 2, 8 inches and up, 12 to 16 feet long, 4-4.....	30 00	34 00
Quartered white, Western, 1 and 2 quality, all figured, 6 inches and up wide, 4-4.....	53 00	55 00
Culls.....	10 00	15 00

POPLAR.

Nos. 1 and 2, 5-8.....	24 50	25 50
Nos. 1 and 2, 4-4.....	28 00	30 00
Nos. 1 and 2, 6 and 8-4.....	32 50	33 50
Culls.....	13 00	16 00

SHINGLES.

Cypr., No. 1 h'rta, sawed, 6x20.....	7 25	7 75
No. 1 saps, sawed, 6x20.....	5 50	6 50
No. 1 hearts, shaved, 6x20.....	6 50	7 50
No. 1 saps, shaved, 6x20.....	5 25	5 50

LATHS.

White pine.....	2 70	2 75
Spruce.....	2 15	2 25
Cypress.....	2 15	2 25

Savannah.

[From our own Correspondent.]
Savannah, Ga., March 2.

Considerable activity has characterized the general lumber market here during the past week, and there is a good steady demand for the better grades of pitch-pine lumber. Manufacturers and others engaged in the lumber industry consider the outlook rather more promising, and at all milling centres in Southern Georgia trade is improving. At the close the market is firm for all desirable material, and quotations range as follows: Ordinary sizes, \$11 to \$12; difficult sizes, \$13 to \$18; flooring boards, \$15 to \$22; shipstuffs, \$16.50 to \$20, and sawn ties, \$10. The business in crossties is increasing, and in staves shipments will be of considerable volume during the spring and summer months. The following cargoes were cleared during the past week: Schooners Jennie E. Ritcher for New York with 11,593 crossties, Carrie T. Balano for Boston with 447,651 feet of lumber and Jennie Thomas for Baltimore with 497,738 feet of pitch-pine lumber. New York steamers cleared with 296,370 feet of lumber, Boston steamers 68,960 feet and Philadelphia steamers 30,000 feet. Lumber freights continue steady, with a fair offering of handy-sized tonnage. The rates from this and nearby Georgia ports are quoted at \$4.25 to \$5.50 for a range including Baltimore and Portland, Me. Railroad ties, basis forty-four feet, 16 cents. Timber rates 50 cents to \$1 higher than lumber rates. To the West Indies and Windward rates are nominal; to Rosario, \$12 to \$13; Buenos Ayres and Montevideo, \$10 to \$11; to Rio Janeiro, \$14; to Spanish and Mediterranean ports, \$11.30 to \$11.50, and to United Kingdom for orders nominal for lumber at £4 5s. per standard. Among the charters reported in New York during the past week are the following: A schooner from Darien, Ga., to Norwich at \$4.75; a brig, 431 tons, from Savannah to New York at \$4.50, and a schooner from Brunswick to Rondout at \$4.80.

Brunswick.

[From our own Correspondent.]
Brunswick, Ga., March 3.

The month of February has been one of considerable activity at this port in lumber circles, and the demand very decided both from foreign and domestic sources. The outlook is regarded as very encouraging, and from the number of vessels bound for this port to arrive during the present month, the shipments will be very heavy. At all milling centres adjacent to this city saw mills are fully employed, while some are behind with orders. The list of values is well maintained, and prices for all desirable grades of manufactured lumber are firm. During the past week the following vessels have sailed with lumber cargoes: Schooners Harry J. Lewis for Halifax with 252,000 feet of lumber; Lena Pickup for Guam with 247,000 feet; Jacob Haskell with 335,000 feet, and Viola Rippard with 375,000 feet, both for Boston. The schooner Frank O. Dame cleared for Philadelphia with 12,950 crossties, and the Spanish brig Marie Orcor with cargo of lumber for Castillon; the schooners Dora Matthews with 334,000 feet of lumber, and the Anna R. Bishop with 228,000 feet of lumber and 700,000 shingles, both for New York. The coastwise exports for the month of February amounted to 4,346,000 feet of lumber, 53,582 crossties and 180,000 shingles. Foreign exports were 2,487,000 feet of lumber and 22,000 crossties, making a total of 6,833,000 feet of lumber, 75,582 crossties and 180,000 shingles. The only charter reported was a schooner, 358 tons, from Darien to Norwich at \$4.75.

Jacksonville.

[From our own Correspondent.]
Jacksonville, Fla., March 2.

The market has been quite active here for lumber during the past month, with a good domestic and foreign demand, the latter showing a marked improvement over the corresponding month last year. The business of the port during the month just closed was slightly greater in volume than that of the corresponding month last year. The total lumber shipments during February amounted to 6,804,254 feet, of which 637,000 feet was cypress lumber to coastwise ports and 406,254 feet to foreign. The lumber shipments for January amounted to 2,000,000 feet in excess of February, and for February, 1895, the shipments were 1,000,000 feet less than for this year. The domestic exports of lumber and other wood products were as follows: Yellow-pine lumber, 5,971,000 feet; cypress lumber, 627,000 feet; shingles, 21,300 bundles, and crossties, 3400. The foreign exports consisted of 406,254 feet of yellow-pine lumber and 12,000 shingles. During the past month the saw mills, both here and at adjacent milling points, have been running at their full capacity, being generally well supplied with orders. The general lumber market will likely continue to show a marked improvement at this port, as well as at all others on the Atlantic coast. At a late conference in New Orleans, representatives of the Atlantic Coast Cypress Association and Louisiana cypress men adopted a uniformity of grades and prices on cypress lumber. A committee of the Louisiana Cypress Association will meet here at an early date to take further steps in the direction of harmony between the two associations. It is not so much to advance prices that these organized bodies are formed, but to remedy the grading of lumber and regulate and equalize values. The shipments of lumber during the past week are reported as follows: The Clyde steamers Iroquois, 300,000 feet of yellow pine and 2500 bundles of shingles; Algonquin, 300,000 feet of yellow pine and 3000 bundles of shingles, and Comanche with 350,000 feet of lumber, 4000 crossties and 2700 bundles of shingles. The schooner Annie Y. Kimball cleared on the 28th ult. for Philadelphia with a large cargo of lumber. Among the vessels in port loading, the schooner Edward H. Smith will take a cargo of lumber to Philadelphia, and the Etta A. Gibson will load lumber for Guadalupe, W. I. Lumber freights are steady and unchanged, with a moderate offering of tonnage. The only charter reported since the 26th ult. in New York was a schooner, 623 tons, from Jacksonville to a Sound port at \$4.75.

Fernandina.

[From our own Correspondent.]
Fernandina, Fla., March 2.

There has been a notable improvement in the lumber market here during the past fortnight, and the outlook generally is more encouraging. During the month of February the tone of trade was quiet, and comparatively little shipping was done, owing to the failures and attachments recorded. The water-front today presents quite a lively appearance, and the advantages for loading lumber is being highly appreciated by shippers generally. At Governor Drew's dock four vessels are

loading lumber, while a long train of cars is being unloaded. The adjoining dock of Cooney, Eckstein & Co. is being rebuilt, and when completed will afford splendid facilities for receiving and shipping. The New York Pitch Pine Lumber Co. will soon commence shipping over the Wheelwright dock. A New York firm, whose agent has made a close inspection of ports for shipments of lumber, has selected Fernandina as being the best Florida port for its purposes. The company will make extensive shipments of lumber, crossties and bridge timbers, and has secured Buck's wharf for its use. The four-masted schooner William C. Tanner and the three-masted schooner Sarah D. Fell were loading lumber on Saturday at the wharf of the Drew Lumber Co., and the schooner Cumberland was being loaded by Cooney, Eckstein & Co. The schooner Rob Roy cleared on the 24th ult. with 550,000 feet of lumber for Boston. Among the charters reported last week in New York were the following: A schooner, 345 tons, hence to Hackersack with lumber at \$4.75 and river towages, and a schooner, 595 tons, hence to Boston with ties at 15 1/2 cents.

Mobile.

[From our own Correspondent.]
Mobile, Ala., March 2.

In every avenue of the lumber and timber industry of this port there is a very active tone present, and the outlook for a good export trade during the spring and summer months is more promising. Receipts of timber during the past two weeks have been heavy, owing to the late freshets, but withal there is no excess of stock, as the vessels now in port and to arrive will soon absorb the present stock. The mills are all busy, and are working up to their full capacity in order to fill their bills now on file. Advices from foreign markets are somewhat encouraging, and values are steady, with no excessive stocks on hand. The demand for lumber is very pronounced at the moment, and for South and Central America several cargoes have gone out during the week. There is also a better demand from the United Kingdom for the better grades of manufactured material, and as the various woods of the South become known and appreciated abroad the demand will improve. An attractive collection of Southern woods is now on exhibition at the passenger office of the Mobile & Ohio Railroad. It embraces thirty kinds of wood, all found on one section of land belonging to the railroad company, thus showing the great value of Southern lands. Among the specimens are five varieties of pine and six of oak, besides elm, red cedar, hickory, ash, cottonwood, wild cherry and other varieties. The movement at present among timber shippers is quite active, and prices very steady. Hewn timber is quoted at 12 cents on basis of 100 cubic feet, average B1 good. Hewn oak is firm at 18 to 20 cents per cubic foot. Sawn timber, when placed upon the market, will bring 11 cents per cubic foot, 40-foot basis. Contracts are made at 11 to 11 1/2 cents basis. The following shipments are reported for the past week: Bark Esmeralda for Dundee, Scotland, with 41,083 cubic feet of sawn timber, 2233 cubic feet of hewn timber and 33,082 feet of lumber; bark Harbitz for Carnarvon, Wales, with 25,614 cubic feet of hewn timber, 1840 cubic feet of sawn timber and 20,580 feet of lumber; bark Belfast for Queenstown with 54,230 cubic feet of sawn timber and 16,982 feet of lumber; ship Charles for Cardiff, Wales, with 48,333 cubic feet of sawn timber, 7750 cubic feet of hewn timber and 351,119 feet of lumber; bark Neptune for Hamburg, Germany, with 57,798 cubic feet of sawn timber, 8812 cubic feet

of hewn timber and 8381 feet of lumber. The bark Nora cleared for Buenos Ayres, A. R., with 522,800 feet of lumber, and the steamer Conder for Belize, S. H., with 21,514 feet of lumber. The movement in timber and lumber at Pensacola is also very active, about 7,000,000 feet of lumber having been shipped during the week, besides about 200,000 cubic feet of sawn timber. The demand from South American markets is increasing, while new markets are opening up for trade with this port. Among the charters reported during the past week in New York the following are reported: A schooner, 790 tons, from Mobile to New York with crossties at 18 cents; a schooner, 216 tons, from Pensacola to Boston on private terms; a schooner, 240 tons, from Moss Point to St. Jago at \$6.50; a bark, 902 tons, and a ship, 1722 tons, from Pensacola to the United Kingdom with sawn timber at 91s. 3d. and 92s. 6d., respectively; a British ship, 1316 tons, from Mobile to a direct port in the United Kingdom with sawn timber at 92s. 6d.; a Norwegian bark, 1008 tons, from Mobile to the United Kingdom or Continent with sawn timber at 95s., and a schooner, 294 tons, from Mobile to Porto Cabello with timber at \$6.25 and port charges.

St. Louis.

[From our own Correspondent.]

St. Louis, Mo., March 3.

The market here is at present in fair shape, and under the existing conditions the outlook for an active lumber trade is considered encouraging. All departments of the industry report a good demand, and yardmen and others in the trade are looking forward to an active spring and summer trade. The demand for yellow pine is good, and retail dealers so far make no complaints as to values in the new list. Values at present are well maintained, and it is said that within the next thirty days another list will be given out for the Western territory, showing a range of prices a shade higher than the present one. The white-pine trade is of considerable volume for this period of the season, and the February business was larger than for the corresponding month last year. Travelers on the road report a healthy tone to trade, with every indication of a liberal demand in the near future. City builders report the prospects as good for building operations, which are heavier than usual. In outlying and suburban districts the same conditions exist, and the demand from dealers is active. In hardwoods the volume of business reported shows considerable expansion, and the weather conditions have a good effect upon the general trade. There is a good movement in agricultural implement and wagon stock, while the demand for railroad and car material continues active. The supply of oak is short, and with the present free movement in quartered white and plain red, stocks are not likely to accumulate during the season. Orders for poplar are coming in daily in considerable numbers, while receipts are quite liberal. Ash is in good request for thick stock and for the upper grades. Cottonwood is selling freely under liberal receipts. Walnut is in good demand for export, with a moderate call for cherry.

The Country's "Lumber Reserve."

Contrasting the condition of timber lands in the South and the Northwest, F. Fellows, a lumberman of Mosinee, Wis., states that the South is the "United States' lumber reserve." In an interview with a New Orleans Picayune reporter he said:

"The forests in the South, I find, in many places, are primeval. There are miles upon miles of cypress and yellow

pine which the saw mill will not touch for years to come. It is different with the white pine of Michigan, Minnesota and Wisconsin. There will be very little of it left in twenty years at the rate it is being cut at present. The timber lands North are nearly all in the hands of a few wealthy men and powerful corporations, and, besides the tract they own, there are now only isolated strips left untouched. I believe that it will pay any man to buy yellow-pine timber lands or cypress tracts. Cypress is a timber that is becoming very popular wherever it is introduced. It answers well the purposes for which it is used. I don't know how prosperous the millmen are down here, but I should judge there is money for the capitalist who goes into cypress the correct way."

Improved Dry-Kilns.

The Emerson Company, of Baltimore, manufacturer of patented automatic compression dryers, has just closed contracts for furnishing three of their compression dry-kilns, for drying pine lumber, to D. W. Alderman & Co., extensive lumber dealers, at Aleolu, S. C.; dry-kilns for the Roy Furniture Co., of Charleston, W. Va., for drying 50,000 feet of oak per week, and to D. L. Shannon, of Canada, for dry-kilns of 150,000 feet weekly capacity. This company is in receipt of many inquiries which promise to materialize in early business.

The Emerson Company, the office of which is No. 809 Fidelity Building, Baltimore, has recently issued a very handsome Russia leather covered catalogue, giving in detail full illustrations and descriptions of its dry-kiln system, which has met with such very wide commendation from leading lumber people throughout the country. This catalogue also contains the experience of many lumber manufacturers who are now using this compression dry-kiln. This system, which is adapted for drying lumber, and which can be utilized also for drying bricks, pottery, tiling, clay, etc., merits the careful investigation of all who are interested in such subjects. The catalogue, containing full particulars, will be furnished upon application.

Lumber Notes.

The schooner Nathan T. Stone cleared and sailed from Sabine Pass, Texas, on the 27th ult. for Vera Cruz with 276,900 feet of lumber.

The exports of wood and its products from Baltimore during the month of February amounted to 2,695,000 feet of lumber, 4187 logs of wood and 145,000 staves.

The door, sash and blind factory of the Fore & Foster Co., of Wilmington, N. C., is running day and night, with two sets of hands, to keep up with West India orders.

Mr. W. S. Alexander, who is operating one of the small saw mills of the Scottish Company near Knoxville, Tenn., is about to dispose of the machinery of the Scottish mill.

Robinson & Booth, wholesale lumber dealers of New York, with mills at Fernando, Fla., assigned on the 26th ult. The assets and liabilities cannot be ascertained until an inventory is taken.

After being shut down for eight months, for want of timber, the mill of the Heyser Lumber Co. at Chattanooga resumed operations last week. The company has on hand 700,000 feet of timber to cut.

The James Lumber Co., of Charleston, W. Va., has recently purchased 5000 acres of timber land on Cabin creek, and is erecting saw mills on the land, having established a station called Leewood.

Mr. Charles F. Pensol, of Little Rock, was last week appointed receiver of the

Smithton Lumber Co., of Arkadelphia, Ark. The liabilities exceed \$100,000, with assets nearly double that amount.

The Bell River Packing Co., of Fernandina, Fla., has a large force of men at work in Suwannee county cutting crossties. These ties will be shipped through Fernandina, the first shipment to be made next week.

The mills at Orange, Texas, all started up on Monday last. The L. Miller Shingle Co., the Litcher & Moore Lumber Co., and the Bancroft Lumber Co. all commenced sawing, while the A. E. Smith shingle mill is to start up during the week.

The largest cargo of lumber ever shipped from Fernandina was stowed upon the schooner William C. Tanner, which cleared last week from that port. The cargo amounted to 902,640 feet of yellow-pine, and was loaded by Harold Weston & Co.

Articles of incorporation were filed last week by the Western Tie & Timber Co., of Paragould, Ark. The capital stock is \$50,000, of which \$5000 has been subscribed. The officers are Richard Jackson, president; R. T. Rogers and W. T. Steadman, directors.

The receipts of lumber at New Orleans for the week ending February 26, as reported by the Mechanics, Dealers and Lumbermen's Exchange, were 1,664,200 feet, and for the season 52,571,300 feet, against 38,652,290 feet for the corresponding period last year.

The Eppinger & Russell saw mill at Olustee, Fla., which has been shut down since 1893, will resume operations this month. During the past month a number of improvements in building and machinery have been added and the capacity of the mill increased from 50,000 to 60,000 feet of lumber per day.

The saw mill at Village Mills, Texas, has been shut down for repairs, and has undergone a thorough renovating, with additions in the shape of first-class machinery. The plant is under the management of Mr. Emet A. Fletcher, vice-president of the Village Mills Co. Operations were resumed on the 24th ult.

A factory for the manufacture of wagon-wheel material is to be established at Florence, Ala., within the next two weeks. The new factory will be operated by W. E. Winch & Bro., who have a similar factory in Indiana. All arrangements have been made, the factory buildings selected and details arranged.

Messrs. Stevenson, Upham and Spies, Northern capitalists who own large tracts of timber lands in Rapides and other parishes in Louisiana, have concluded to erect a large saw mill between Forest Hill and Glenmore, in Rapides, on the Kansas City, Watkins & Gulf Railway. The site has already been selected.

Mr. H. A. Mullally has resigned the management of the saw mill of the Cottonwood Box & Lumber Co. at Kenner, La., and is negotiating for the sale of his interest in the plant. Messrs. Hyman, Hiller and others, of New Orleans, recently reorganized the company and supplied the money for the completion of the plant.

The Riverside Lumber & Manufacturing Co., of Black Rock, Ark., filed articles of incorporation last week. The incorporators are J. F. Bottger, W. C. Hildebrand, F. J. Hildebrand, Conrad Farmer, W. W. Bradley, Katharine R. Hildebrand and Mary Jane Bottger. The capital stock is \$25,000, of which \$15,000 is paid in.

The Gardner & Lacy Lumber Mills at Georgetown, S. C., resumed operations last week. The smokestack which was blown down in the recent gale has been

replaced and the mill supplied with a new battery of boilers and a new band-saw machine. The daily capacity of the mill will now be about 60,000 feet of lumber per day.

The railroad which is being built from Long Creek village six miles along the creek by the Hilton Lumber Co., of Wilmington, N. C., will be finished in about three weeks. After operations begin the company will cut 36,000 feet of timber daily, which, after being railed to Long Creek, will be rafted to the mill at Wilmington, N. C.

The saw mill on the Clough-Hillard property, north of Way Cross, Ga., is nearly completed, and will be in operation in a few days. Capt. L. Johnson, general manager of the Way Cross Air Line, the owner of the mill, has purchased the timber on the Clough-Hillard property, and will manufacture lumber out of all available material.

The Devereux Lumber Co.'s mill, of Charleston, W. Va., which has been shut down for several days, has started up again. Its capacity for cutting lumber is 110,000 feet per day when running two shifts of ten hours each. The company has now logs enough to keep the mill running two months, and will get another large lot on the next rise in Elk river.

Mr. E. J. Marsh, of Georgetown, S. C., secretary and treasurer of the Atlantic Coast Cypress Association, and Mr. E. C. Wilson, of Palatka, Fla., held a conference last week in New Orleans with Louisiana cypress men, at which an agreement as to prices and grading was reached. Mr. Marsh represents eighteen mills in the Atlantic Association, including all the leading cypress interests in Florida and further north.

The Hale Manufacturing Co., of Kansas City, Mo., has taken out articles of incorporation with a capital stock of \$50,000. Joseph Heim, president of the Heim Brewing Co., holds \$25,000 of the capital stock, and Fire Chief George Hale the other \$25,000. The company will operate a factory for making wagon wheels, axles, spokes, shafts and a general line of woodenware for the hardware and agricultural-implement trade.

A charter was granted last week to the Mount Vernon Spoke Co., of Alexandria, Va., to manufacture wagon and carriage spokes and wagon material and supplies. The capital stock of the company is to be not less than \$25,000, nor more than \$50,000. The officers of the company are: Park Agnew, president; M. B. Harlow, secretary and treasurer, and the officers, with D. T. Demorest, G. H. Harlow and James R. Caton, constitute the board of directors.

Mr. Alfred Hirt, of Greencastle, Ind., a large manufacturer and shipper of barrel staves, visited Savannah last week to arrange for making that city his shipping port. Mr. Hirt has secured large tracts of land in Wilcox and adjoining counties in Georgia. He proposes to ship by steamer cargo, bringing his product direct from the banks of the Ocmulgee river by the new Savannah and Hawkinsville river route to Savannah. A cargo will be ready for shipment in April.

Judge W. L. Lewis, who owns and operates the Clendennin & Spencer Railroad, which line runs up the Big Sandy valley, in West Virginia, has over 200 men at work getting out timber. He has four saw mills running constantly cutting staves, ties and other kinds of timber. Two locomotives are employed hauling the lumber to Elk river at the junction of this road with the Charleston, Clendennin & Sutton Railway, from which it is either floated down the Elk river or shipped to market by rail.

CONSTRUCTION DEPARTMENT.

THE MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

ALABAMA.

Anniston—Fruit Cultivation.—The Anniston Homestead and Fruit Growing Association has been formed and purchased 8000 acres of land near Anniston, which will be planted in vineyards, etc. The company's capital stock is \$150,000, and R. L. Spencer, of Fruithurst, Ala., and W. G. Ledbetter, of Anniston, are interested.

Florence—Wagon Works.—W. E. Winch & Bro., of Indiana, manufacturers of wagon material, will establish a similar plant in Florence, to employ about 100 men.

Jenifer—Cotton Mill.—It is reported that a cotton-mill company is being organized, and John H. Wilson may possibly be able to supply information.

Munford—Gold Mines.—It is reported that parties will develop gold mines in the mountains near Munford.

ARKANSAS.

Black Rock—Lumber Company.—The Riverside Lumber & Manufacturing Co. has been incorporated, with a capital stock of \$25,000, by J. P. Bottger, Wm. C. Hildebrandt and others.

Fort Smith—Mercantile.—The Boston Store has been incorporated, with a capital stock of \$25,000, by Charles A. Stix and others.

Little Rock—Shirt Factory.—Aaron Frank has established a shirt factory.

Little Rock—Lumber Company.—The Western Tie & Lumber Co. has been incorporated, with a capital stock of \$50,000, by Richard Jackson and others.

FLORIDA.

Gainesville—Electric-light Plant.—W. B. Goodwin contemplates the erection of an electric-light plant.

Key West—Telegraph and Telephone.—The Key West Ocean Telegraph & Telephone Co. has been incorporated, with a capital stock of \$25,000, to construct telephone and telegraph lines; Wm. D. Cash, president; Ben McLendon, secretary, and W. B. Curry, treasurer.

Miami—Ice Plant.—Arrangements have been completed for the erection of the ice plant, lately mentioned, by S. N. Gladwin. A 20-ton plant is ready for shipment, and the Miami Ice Co. will be formed to operate it.

Miami—Saw Mill.—F. E. Bond, of De Land, will erect a saw mill and novelty works in Miami, to be managed by F. C. Morris.

Ocala—Cotton Gins.—Geo. K. Robinson and J. J. Gerig will erect a cotton gin.

Opustee—Saw Mill.—The Eppinger & Russell Lumber Co. has made improvements to its mills, idle since 1893, and will put same in operation; capacity increased from 50,000 to 60,000 feet daily.

Orlando—Machine Works.—Negotiations are pending between the South Florida Foundry and Machine Works and J. Dolg, of Gainesville, Fla., for the manufacture of an improved gin.

Tampa—Broom Factory.—James Lenfestey has established a broom factory.

Tampa—Turpentine Manufacturing, etc.—The Florida Naval Stores Co. has been incorporated, with a capital stock of \$250,000, and H. L. Morris, president; Albert E. Morris, vice-president, and Frank Bruen, secretary-treasurer. The company has purchased 14,000 acres and leased 10,000 acres of turpentine timber lands in Sumter and Marion counties, and will develop same, manufacture turpentine, etc.

Venice—Orange Cultivation.—The Southern Florida Co-operative Fruit Growing Association has been organized, with a capital stock of \$50,000, and will plant orange groves on a large scale. The directors are L. B. Wombwell, of Tallahassee; S. Powers, of Jacksonville; James Mott, of Orlando; T. M. Weir, of Tampa, and Kline O. Varn, of Venice.

West Palm Beach—Publishing Company.—The East Coast Publishing Co. has been organized, with a capital of \$50,000, and W. S. Graham, president; C. C. Chillingworth, vice-president, and W. M. Featherlit, secretary.

GEORGIA.

Adairsville—Cotton Mill.—G. R. Casey is moving in the matter of organizing a cotton-mill company.

Atlanta—Mercantile.—The Southern Purchasing Co. has been incorporated, with a capital stock of \$50,000, by Charles L. Tucker and others.

Atlanta—Building Company.—The Equitable Building Co. has applied for charter, with a capital stock of \$200,000, incorporators being W. P. Inman, W. C. Sanders, R. J. Lowry and others.

Atlanta—Machine Works.—Charter has been applied for for the Van Winkle Gln and Machine Works, with a capital stock of \$200,000, to continue the operation of the plant of the Van Winkle Gln & Machine Co. E. P. McBurney and Mall R. Wilkinson are interested.

Atlanta—Brass Foundry, etc.—Thaddeus Galvin, of Detroit, Mich.; E. Van Winkle and E. P. McBurney have applied for incorporation of the Galvin Brass & Hydrant Co., with a capital stock of \$40,000.

Atlanta—Marble Quarries.—The Verd Antique Marble Co. has been incorporated, with a capital stock of \$50,000, by A. C. Macfanchlan, Henry Cooper and George Talbot.

Athens—Electric Plant.—The machinery has commenced to arrive for the electric water-power plant of the Athens Street Railway Co., near Athens, and is now being placed. The water-wheels will generate 885 horse-power. Upon the completion of this plant several small industries will be started, including a shirt factory, etc.

Athens—Improvement Company.—The Athens Park & Improvement Co. has been reorganized, and will continue its improvements and advancing the city's manufacturing interests; A. H. Hodgson, president; C. A. Rowland, treasurer, and C. D. Flanagan, secretary.

Augusta—Telephone Company, etc.—The Augusta Telephone & Electric Co. has accepted charter and organized, with W. C. Jones, president, and P. M. Mulherin, secretary-treasurer. The company will establish telephone system.

Cedartown—Knitting Mill.—T. H. Walters, of Philadelphia, Pa., has in view the removal of the Myra Hosiery Mills to Cedartown.

Columbus—Water-power Development, Cotton Mill, etc.—John Hill has purchased the lands and water-rights of the old Rock Island Paper Mill, on the Chattahoochee river above Columbus. The property includes 147 acres of land in Alabama and a large island of stone across the river in Georgia, consisting of about five acres. It is estimated a good water-power can be developed at cost of about \$15,000 to \$20,000. Capitalists have signified their intention to become interested in a 40,000-spindle cotton mill, to be erected on the property and operated by electricity transmitted by the water. Estimates for the transmission are now being made for this and other uses.

Cycloneta—Saw Mill.—J. J. Phillips is erecting a large saw mill.

Dahlonega—Gold Mines.—Rice & Davis are developing a new gold vein.

Dahlonega—Gold-mining.—The Preacher Gold Mining Co. is preparing to open gold mines on Crown mountains.

Dalton—Stove Works.—There is some talk of the removal of the Cleveland Stove Works, at Cleveland, Tenn., to Dalton. The plant represents about \$70,000 and would employ seventy-five hands; J. H. Hardwick, superintendent.

Douglasville—Brick Works.—Amos Hales & Co. will erect brick works, as stated last week, to have daily capacity of 50,000, and will work forty men.*

Ingleside—Plow Works.—The Atlanta Plow Works, with a capital of \$20,000, will erect works at Ingleside to employ 100 men.

Macon—Clothing Factory.—Geo. A. Smith is in correspondence with Chicago parties relative to the establishment of a clothing factory with a capital of about \$35,000.

Millen—Cotton Mill.—A movement is afoot for the erection of a cotton mill, and W. S. Witham is interested.

Savannah—Street-paving.—The city may contract for a large amount of paving this year. Address the mayor.

Social Circle—Electric-light Plant.—J. L. Watkins will put in an electric-light plant.

Valdosta—Cotton Mill.—Charles James, Central Hotel, is negotiating with parties for the establishment of one or more spool-cotton mills.

Waltersville—Machine Shops.—The Waycross Air Line will erect temporary shops at Waltersville, but in the near future remove them to Waycross.

Waycross—Machine Shops.—The Waycross Air Line will soon remove its shops to Waycross from Waltersville. (See "Waltersville.")

KENTUCKY.

Georgetown—Ice Plant.—The Georgetown Electric Street Railway & Ice Co. has obtained permit for the erection of the buildings for its proposed ice factory, 114x65 feet.

Lawrenceburg—Electric-light Plant.—Regarding the proposed electric-light plant, the Manufacturers' Record is informed that it will be built in the near future. Jno. P. McWilliams can be addressed.*

Moberly—Pottery, etc.—Charles L. Seary will erect a plant for the manufacture of vitrified brick, tiling and pottery.

LOUISIANA.

Evergreen—Shingle Mill.—H. L. Robinson, of Lake Charles, La., will erect a shingle mill at Evergreen.

Forest Hill—Timber Lands and Saw Mills.—Stevenson, Upham and Spies, Northern capitalists, will erect a large saw mill near Forest Hill to cut the timber on tracts of land which they own.

Monroe—Cotton Mill.—Capitalists are ready to invest \$50,000 in the erection of a 100,000 cotton mill, and a company will be formed in the near future. D. M. Sholars can be addressed.

Monroe—Moss Gin.—The moss gin, lately noted, will be erected at once by Joe Mangham and L. R. Powers; capital to be \$10,000; to employ twenty hands.*

MARYLAND.

Baltimore—Fruit Company.—The Baltimore & Boca del Tora Fruit Co. has been incorporated, with a capital stock of \$50,000, by Edw. L. Palmer and others.

Baltimore—Telegraph Company.—The Autographic Telegraph Co. has been incorporated, with a capital stock of \$1000, by Michael Jenkins and others.

Cambridge—Telephone System.—The Dorchester Telephone Co. has been incorporated, with a capital stock of \$1500, to establish a telephone system; George W. Woolford, president, and T. H. Medford, secretary-treasurer.

Frederick—Shoe Factory.—Edward E. Spencer & Co., of New York city, are said to contemplate establishing a branch shoe factory in Frederick.

Hagerstown—Manufacturing Company.—Samuel Hawley and H. E. Hooper, of Media, Pa., and J. B. Meredith and Guy Webster, of Philadelphia, Pa., are negotiating for the establishment of a large manufactory, to employ several hundred hands.

Oella—Woolen Mill.—Wm. J. Dickey & Sons are preparing a building for additional machinery, including forty-five kersey looms.

MISSISSIPPI.

Aberdeen—Cotton Compress.—The Aberdeen Compress Co. has been formed for the purpose of erecting a cotton compress; Jno. J. McDonald, president; J. W. Peck, vice-president, and A. J. Brown, secretary-treasurer.

Enterprise—Brick Works.—John Elvin has secured a site on which he will erect a plant for making repressed hollow brick, tiling, etc.

MISSOURI.

Bethany—Mercantile.—The R. H. Wren Mercantile Co. has been incorporated, with a capital stock of \$25,000, by R. H. Wren and others.

Louisiana—Woolen Mill.—Charter has been granted to the Pike County Woolen Manufacturing Co., with a capital stock of \$11,000, by Henry and Michael Gensburger and Elias Frank. This company has established plant, as recently stated.

Kansas City—Wagon Works.—The Hale Manufacturing Co. has been incorporated with a capital stock of \$50,000, and will establish a plant for making wagon wheels, axles, spokes, shafts, and a general line of knock-down woodenware, etc. George Hale and Joseph Heim are interested, and they expect to employ 200 to 300 men.

Kansas City—Lumber Company.—The Lehigh & Havens Lumber Co. has been incorporated, with a capital stock of \$200,000, by John H. Lehigh and others.

Kansas City—Sand Company.—The Welch-Stewart Sand Co. has been incorporated, with a capital stock of \$10,000, by Henry P. Stewart and others.

Kansas City—Land Company.—The City Lot Co. has been incorporated, with a capital stock of \$10,000, by Edwin R. Crutcher and others.

Monett—Mining.—The La Tosca Mining Co. has been incorporated, with a capital stock of \$40,000, by John C. Munson and others.

Sedalia—Mining.—The Sedalia Land & Mining Co. has been incorporated, with a capital stock of \$50,000, by Albert C. Yost and others.

St. Joseph—Axle Company.—A. S. McDonald and others have incorporated the St. Joseph Bar & Axle Co., with a capital stock of \$15,000.

St. Louis—Ice Plant.—The Huse & Loomis Ice & Transportation Co. has contracted for the erection of a 100-ton ice plant.

St. Louis—Tire Company.—The Advance Tire Co. has been incorporated, with a capital stock of \$100,000, by Martin E. Maloney, Thos. P. Luckey and others.

St. Louis—Bag Factory.—The H. & L. Chase Bag Co. has been incorporated, with a capital stock of \$400,000, by F. H. Laddington and others.

NORTH CAROLINA.

Charlotte—Trousers Factory.—The Dixie Pants Co. has been reorganized and applied for charter, with capital stock placed at \$30,000. The factory will be much enlarged and new machinery added; incorporators, George E. Wilson, J. Hirschinger, John E. Oates, J. M. Oates, A. C. Summerville and E. S. Reid.

Durham—Paper-box Factory.—The Durham Paper Box Co. has been purchased by O. F. Adams and J. A. Perry, who will add new machinery to operate the factory.

Hickory—Cotton Mill.—A company is being organized to erect a cotton mill, and \$40,000 has been subscribed. A. A. Shuford is interested.

Laurinburg—Cotton Mill.—W. D. James, A. L. James, B. Bryant and others have organized the Morgan Cotton Mills to erect a plant, with a capital stock of \$50,000.

North Wilkesboro—Gold Mine.—Report is circulating J. L. Whittington with a rich gold find in his mining property, fifteen miles from North Wilkesboro.

North Wilkesboro—Manufacturing Company.—The Wilkesboro Manufacturing Co. has been incorporated, with a capital stock of \$45,000.

Parham—S. S. Parham and others have incorporated the Parham Brothers Co.

Salisbury—Machine Shops.—The Southern Railway Co. office, Washington, D. C., will erect in Salisbury the proposed shops which have been under consideration for some time. The new shops will be additional for the care of motive power and freight cars, and will include ten erecting

pits; total cost of same, about \$200,000. For further particulars address C. H. Hudson, chief engineer, 1300 Pennsylvania avenue, Washington, D. C.

Tarboro—Bridge.—Edgecomb county has decided to construct an iron and steel bridge, 500 feet long, across the Tar river, after plans and specifications now ready. A committee has been appointed to receive bids. Address the county commissioners.*

Yadkinville—Flour Mill.—A. E. Holton, of Winston, has contracted for the erection of a 40-barrel flour mill at Yadkinville.

SOUTH CAROLINA.

Alcohu—Dry-kilns.—The D. W. Alderman Co. has contracted with the Emerson Co., of Baltimore, Md., for the erection of three dry-kilns for pine lumber, etc.

Beaufort—Cotton Mill.—The movement for a cotton-mill company has progressed to the election of a board of directors, namely, F. W. Schepher, N. Christenson, Chas. E. Daner and others. About \$50,000 have been subscribed.

Greenwood—Cotton Mill.—D. A. P. Jordan, W. L. Durst and others have applied for a charter for the Grendel Mills, to erect a plant for manufacturing brown goods.

Hartsville—Knitting Mill.—J. S. White is trying to arrange for the establishment of a mill for knitting undershirts.*

Landrum—Cotton Mill.—A movement has been started for the erection of a cotton mill, and Jacob Carpenter, Joseph Lee and others are interested.

Orangeburg—Electric-light Plant.—The Messrs. Aden, who recently bought the city electric-light plant, have put in 120 horsepower engine and made other improvements to facilities.

South Carolina—Chalk Beds.—Cal and Cary Lamar and G. R. Landrum are opening chalk beds near Augusta, Ga., in South Carolina.

South Carolina—Bleachery.—Chas. Estes, Fred B. Pope, Thos. G. Barrett, Jr., and Landon Thomas, of Augusta, Ga., have purchased a tract of 1148 acres of land in South Carolina, near Augusta. The property includes a stream of water known as Little Horse creek, the water of which has been analyzed and found suitable for use in a bleachery. The purchasers will erect a bleachery, and are now applying for a charter for that purpose.

Yorkville—Cotton Mill.—John R. Ashe is endeavoring to form a company to erect a \$100,000 cotton mill.

TENNESSEE.

Chattanooga—Butter-dish Factory.—The Benjamin Manufacturing Co. will remove its plant to a new site near Chattanooga, to be nearer good timber supply. Capacity will be increased to 100,000 from 60,000.

Chattanooga—Machine Shops.—G. W. Berickson and Thos. B. Tower have leased the Truxall-Dunmeyer Machinery Co.'s plant; will make extensive improvements and operate same.

Crossville—Saw Mill.—W. J. Andrews has purchased and will add new machinery to the Crofts saw mill.

Crossville—Oil Wells.—The Union Land & Development Co. has leased 50,000 acres of land in Cumberland and other counties and will drill for oil.

Dayton—Iron Furnaces, Iron Mines, etc.—Peter Donaldson and Thomas Neal McKinnon, of Glasgow, Scotland, have purchased the properties of the Dayton Coal & Iron Co., consisting of two blast furnaces of 150 tons capacity each, 5000 acres of coal land, two mines in operation. The sale is said to be a part of a plan for reorganization.

Harriman—Iron Furnace.—There is a project afoot for the erection of a blast furnace of 150 tons capacity and capital of \$300,000. Over half the required capital has been subscribed.

Knoxville—Sewing-machine Works, etc.—George A. Norcross has invented and patented a single-thread lock stitch for sewing machines, and is negotiating for arrangements to introduce same on sewing machines, and perhaps manufacture sewing machines themselves, in Knoxville.

Maynardville—Saw Mill.—Bud Norris will erect a saw mill.

Memphis—Saw Mill.—J. H. Gardner & Son, of Liverpool, England, have bought site near Memphis and will erect a saw mill. For information apply to J. H. Mann, Paducah, Ky.

Mossy Creek—Zinc Mines.—The Bertha Zinc Co., of Pulaski City, Va., will develop zinc deposits near Mossy Creek.

Tennessee—Timber Lands, etc.—James J. Brooks, of Boston, Mass.; Henry A. Buell,

of Lawrence, Mass.; H. H. Ingersoll, of Knoxville, Tenn., and others have incorporated the Tennessee Lumber & Mining Co., to control a large tract of mineral and timber land recently bought.

TEXAS.

Austin—Flour Mill.—Landa Brothers, of New Braunfels, Texas, contemplate erecting a 400-barrel flour mill in Austin.

Bonham—Electric Plant.—The Bonham Electric Railway, Light & Power Co. has been incorporated, with a capital stock of \$25,000, by A. C. Alexander, Wm. Laning, R. B. Sample, Ed. D. Steger and C. L. Bradford; this company recently noted as to double plant.

Cleburne—Cannery.—M. D. Miller and associates are endeavoring to arrange for the erection of a cannery, and committee has been appointed to investigate cost, etc.

Greenville—Mercantile.—The Greenville Grocery Co. has been incorporated, with a capital stock of \$25,000, by W. T. Alken and others.

Hillsboro—Mercantile.—The Thompson-Lange Hardware Co. has been incorporated, with a capital stock of \$50,000, by J. R. Thompson and others.

Laredo—Tannery.—A company will be chartered to erect a tannery. D. Schoenstein can be addressed.

San Antonio—Shoe Factory, etc.—The Texas Shoe & Leather Manufacturing Co. has been incorporated, with a capital stock of \$80,000, by Martin C. McGinness, George R. Sullivan and Jacob D. Strauss. The company will operate the shoe and leather factory lately noted as to be erected.

Stephenville—Electric-light Plant.—The Baldwin Gin Co. intends to erect an electric-light plant for supplying 2000 inhabitants.

Taylor—Sewerage System.—J. L. Bowers, of the International & Great Northern Railroad, is figuring upon specifications for a sewerage system for the company.

Taylor—Sewerage.—The city has in contemplation the construction of a sewerage system. Address the mayor.

VIRGINIA.

Alexandria—Spoke Factory.—The Mt. Vernon Spoke Co. has been incorporated, with a capital stock of \$50,000, and Park Agnew, president; M. E. Harlow, secretary-treasurer. The company will operate the new factory in New Alexandria.

Cape Charles—Oyster Shippers.—The Export Lock Shell Oyster Co. has been organized, with a capital stock of \$300,000, to introduce a process to keep oysters fresh when traveling a long distance. Charles S. Hirst is to be president.

Charlottesville—Electric Plant.—The Massey Light & Power Co. has been incorporated, with a capital stock of \$50,000, and W. J. Fricklin, president, and F. R. Trieber, secretary-treasurer.

Crimora—Telephone Line.—A company has been organized to establish telephone systems, by Newton Patterson and others.

Lynchburg—Laundry.—The Antiseptic Laundry Co. will establish a steam laundry.

Marion—Handle Factory.—Atkins Bros. will enlarge their handle factory.

Marion—Lime-kilns.—John R. Venable & Co. will erect lime-kilns.

Newport News—Power Plant.—The Hampton Street Car Co. is constructing a bed of cement, on which it will erect a thirty horsepower double expansion engine, with direct connection with dynamo, at a cost of about \$15,000.

Newport News—Foundry.—Cuskey Bros., of Philadelphia, Pa., who recently purchased the Newport News Brass and Iron Foundry, will make extensive improvements to same, including the erection of a large cupola, elevator for hoisting pig iron to cupola platform, twenty-two new brass furnaces, fifty horsepower engine, 100 horsepower boiler, four jib cranes for handling crucibles, etc. The plant will operate in future as the Cuskey Iron and Brass Foundry. It is said that the orders now on hand will keep the plant employed for the next five years.

Petersburg—Cotton Mill.—The Swift Creek Cotton Mills, burned last week, will be rebuilt at once; J. A. Smith, president of the company.

Radford—Broom Factory.—The erection of a broom factory is projected. G. A. Sullivan can be addressed.

Radford—Cannery.—Report states that a cannery will be erected.

Richmond—Mercantile.—The United Provision Co. has been incorporated, with a capital stock of \$50,000, by J. E. Baker and others.

Roanoke—Explosives Factory.—T. Joseph Kelly, representing the Atlantic Dynamite Co., of Wilmington, Del., is in Roanoke arranging for the erection of a factory for powder, dynamite and other explosives.

WEST VIRGINIA.

Charleston—Dry-kilns.—The Roy Furniture Co. has contracted with the Emerson Co., of Baltimore, Md., for the erection of dry-kilns for drying 50,000 feet of oak per week.

Charleston—Mercantile.—The House-Herman Co. has been incorporated, with a capital stock of \$100,000, by George E. House and others.

Charleston—Ice Plant.—J. Q. Dickinson, Wm. Mild, of Cincinnati, Ohio; Fred Gardner, of Charleston, and others have organized a \$30,000 company to erect an ice plant; machinery already secured.

Charleston—Ice-machinery Works.—William Mild, of Cincinnati, Ohio, will remove his ice-machine works to Charleston in the spring; 150 men employed.

Martinsburg—Coal and Iron Mines, etc.—W. H. Hill has sold a large tract of timber, coal and iron lands in Nicholas county to an English syndicate for \$250,000, and developments will follow.

BURNED.

Johnson City, Tenn.—Lyde, Dickenson & Russell's barrel-head factory.

Kingston, Md.—The oyster packery of L. Melbourne.

Louisville, Ky.—Warehouse, etc., of the American Tobacco Co.; loss \$10,000.

Martinsburg, W. Va.—The tobacco factory of Mr. Grabbill; loss \$7000.

Nave Hill, Tenn.—J. P. Lay & Bro.'s flour mill; loss about \$3000.

Norfolk, Va.—The oyster packery of T. W. Cleveland & Bro., in Atlantic City ward.

BUILDING NOTES.

Abbeville, Ga.—Hotel.—Mrs. J. M. Morris will erect a 100-room hotel, and bids will be wanted when plans are ready.

Athens, Ga.—Office Building.—H. C. Conway contemplates the erection of a three-story brick office building.

Atlanta, Ga.—Dwelling.—Andrew J. Bryan & Co. have prepared plans for a residence for R. M. Wiley; contract to be let within three weeks.

Atlanta, Ga.—Jail.—Grant Wilkins will prepare plans for the city's new jail.

Atlanta, Ga.—City Hall.—Propositions are being discussed for the erection of a building ten stories high, constructed of granite and steel, fire-proof, and with all the latest improvements. Address R. M. Clayton, city engineer.

Baltimore, Md.—Hotel.—Bernard N. Baker, John Hubner and James A. Gary, together with others, will form a \$100,000 company to build a hotel.

Baltimore, Md.—Office Building.—The Howard Fire Insurance Co. has purchased and will remodel the building at 306 Water street.

Berkeley Springs, W. Va.—Hotel.—Eastern capitalists are said to contemplate the purchase of the Berkeley Springs Hotel, with the intention of expending \$500,000 in improvements to same.

Carroll County, Md.—Asylum.—The board of directors of the Second Insane Asylum will ask the legislature for \$100,000 to erect buildings. Dr. Geo. H. Rohe, of Baltimore, Md., is to be superintendent.

Charleston, S. C.—Hotel.—Sol Bowman is negotiating for the purchase of the Osceola Hotel, with the intention of remodeling same.

Charlotte, N. C.—Residence.—C. C. Hook is preparing plans for a residence for E. T. Candler.

Charlottesville, Va.—Church committee has been appointed to secure plans for remodeling the Baptist church. Address the pastor.

Chattanooga, Tenn.—Residence.—Permit to build granted to James Dowling for a \$3000 dwelling.

Clifton Forge, Va.—E. G. Frye, of Lynchburg, has prepared plans for eight-room school building; to have steam heat, slate roof, slate blackboards, etc.

Daphne, Ala.—Hotel.—W. D. Randall, of Cleveland, Ohio, will erect a hotel at Daphne.

Douglas, Ga.—School.—B. Peterson and E. A. Buck will erect a school building.

Douglasville, Ga.—Dwelling.—Andrew J.

Bryan & Co., of Atlanta, have prepared plans for a residence for Joe James.

Douglasville, Ga.—Courthouse.—Bids will be opened April 6 for the erection of courthouse after plans by Andrew J. Bryan & Co., Equitable Building, Atlanta, Ga. (See advertisement in Manufacturers' Record, March 6.)

Eutaw, Ala.—Store.—A. R. Morrow will erect a brick store.

Fitzgerald, Ga.—Hotel.—C. H. Fitzgerald will erect a hotel, and an Indianapolis architect is now preparing plans for same.

Fitzgerald, Ga.—Hotel.—Mrs. J. M. Morris, of Abbeville, Ga., will erect a 100-room hotel in Fitzgerald. Bids will be wanted when plans are ready.

Gonzales, Texas—Business House.—Bids will be opened March 25 for the erection of a three-story business house, of brick and rock. Plans and specifications can be seen at the office of Jos. Warrenger, architect, San Antonio, Texas.

Houston, Texas—Dwellings.—J. P. Rotge has permit for building to cost \$4000; J. J. Wells, three-story brick to cost \$6000, and J. S. Dunlap for three-story brick to cost \$8000.

Kerryville, Texas—Hall.—It is proposed to form a stock company to build a public hall.

Knoxville, Tenn.—Residence.—Permit granted to C. B. Isbester for the erection of a residence to cost \$7000.

Macon, Ga.—Depots, etc.—The Georgia Southern & Florida Railroad Co. has decided to erect extensive freight depots and offices.

Morristown, Tenn.—Hotel.—Boston capitalists are said to contemplate the erection of a hotel in Morristown.

Morristown, Tenn.—Hotel.—J. S. Crump will erect an addition to the Virginia Hotel.

Norfolk, Va.—Office Building.—Mr. Moser is preparing plans for a brick building, three stories high, 50x100 feet in size.

Norfolk, Va.—Hotel.—A company has been formed to erect a hotel at Pig's Point, etc.

Opelika, Ala.—Courthouse.—Lee county will build a courthouse to cost about \$25,000. W. C. Robinson can be addressed.

Point Clear, Ala.—Hotel.—It is reported that a company of Western parties will erect a hotel near Point Clear.

Richmond, Va.—Church.—It is proposed to erect a \$50,000 church building for Grace Street Baptist Church. Address Dr. Hatcher, pastor.

Society Hill, S. C.—Dwelling.—Wilson & Edwards, of Columbia, S. C., have prepared plans for a 12-room dwelling for J. J. Lucas.

Spartanburg, S. C.—Jail.—Sealed bids will be received until April 9 for the erection of a jail and jailer's residence. Send for particulars to J. D. Leonard, chairman of committee.

Stafford Springs, Miss.—Hotel.—The Stafford Springs Mineral & Hotel Co., of New Orleans, La., writes regarding the hotel lately mentioned that it has no intention of building at present.

Washington, D. C.—Building permit issued to W. A. Kimmel for five dwellings, to cost \$55,000.

RAILROAD CONSTRUCTION.

Steam Railways.

Ashland, Ky.—It is reported that Stacey & Deiter, of Chicago, may build a road from Myrtle, Ky., to coal lands they own in Johnson county.

Atlanta, Ga.—It is stated that the Nashville, Chattanooga & St. Louis has decided to construct twenty-four sidetracks for a freight yard in the suburbs which will accommodate 700 cars. Hunter McDonald, at Nashville, Tenn., is chief engineer.

Charleston, W. Va.—A charter has been granted to Robert T. Olney, Roman Pickens, Thomas L. Brown, Stephen T. Tenays, Joel H. Meadows, Cassius D. Herford and Fontaine Brown for constructing a road from St. Albans to the Forks of Coal, thence to Peytona, on Big Coal river, thence to the junction of Marsh and Clear Forks, thence by way of Marsh Fork to the Norfolk & Western Railroad, in Mercer county, with a branch railroad fifty miles long from the Forks of Coal to Boone Court House; thence to the junction of Pond and Spruce Forks, thence to the headwaters of Pond Fork and to the Wyoming county line. Chief office to be in Charleston, and the title of the charter just obtained is "The Coal River Railroad Co. of West Virginia."

Cleveland, Tenn.—Citizens of Cleveland have pledged themselves to raise \$40,000 in stock subscriptions and to secure town bonds for \$10,000 to build a road from Cleve-

land to Tunnel Gap, Ga., eighteen miles, to connect with the Western & Atlantic. J. H. Craigmiles, of the Cleveland National Bank, and L. L. Harle, president of the Bank of Charleston, are interested.

Cleveland, Tenn.—Mr. J. H. Craigmiles, chairman of the committee on the railroad projected from Cleveland to Tunnel Gap, writes the Manufacturers' Record that the exact distance is twenty-three miles, and that arrangements may be made with the Western & Atlantic Company to build it.

Fort Valley, Ga.—The Central of Georgia Railway Co. intends building a number of sidings, it is stated, to fruit farms near Fort Valley, so that cars can be loaded at the places where the fruit is packed. H. M. Comer, at Savannah, is president.

Frederick, Md.—It is reported that the Pennsylvania Company will purchase the Frederick & Pennsylvania Line road, which it is now operating, and extend it from Frederick to Washington. The road extends from Frederick to the Pennsylvania State line, twenty-eight miles. The extension would be forty miles long. Charles E. Trill is president.

Hamburg, Ark.—It is reported that about sixteen miles of the railroad between Sunnyside and Hamburg have been graded already. The Sunnyside Company, 192 Broadway, New York, has charge of the enterprise.

La Follette, Tenn.—George W. Callahan & Co., railway contractors, of Knoxville, Tenn., advise the Manufacturers' Record that they have secured the contract to build the first section of the La Follette Coal & Iron Co.'s railway, fourteen miles, and expect to let sub-contracts at once. They may be addressed at Knoxville.

Littleton, N. C.—Parties are considering the idea of building a steam dummy line from Littleton to Panacea Springs, three miles.

Marlin, Texas.—F. S. Bates, of Memphis, Tenn., offers to build a road from Marlin to a connection with the International & Great Northern, near the Brazos river, for a \$150,000 bonus. Rice & Bartlett, of Marlin, are interested.

Mobile, Ala.—The projectors of the Mobile, Jackson & Kansas City road state that they have secured about \$60,000 of the \$125,000 in stock subscriptions asked of Mobile people. F. R. Merrill and H. Austill are interested.

New Orleans, La.—The Illinois Central Company has obtained permission to build several miles of switches to its property along the river front and to cotton compresses. About \$80,000 will be expended in this work. Division Engineer J. G. Mann, at New Orleans, may be addressed.

New Orleans, La.—The Southern Pacific Company will build a short spur at Algiers, near the city, for use in shipping and loading coal. A derrick and steam shovel will be used for hoisting purposes. W. F. Oeven, at Algiers, is superintendent.

Queenstown, Md.—Tracklaying has begun on the Queen Anne's Railway between Queenstown and Denton, Md. J. W. Troxel is chief engineer.

Richmond, Va.—The Richmond & Manchester Terminal Company has been formed to build railways, also wharves and elevators, on the James river. Ware B. Gray, Julius Baker, H. S. Sears and W. S. Wesson are interested.

Staunton, Va.—The Augusta, Highland & Alleghany Company has been organized, with Ferdinand F. Chisolm, of New York, president; Gustav Chisolm, of New York, vice-president; F. G. Fricke, of Pittsburgh, secretary. It is stated that work has begun on the line. W. D. Rippetol, of Buffalo Gap, Va., is a director.

Terrell, Texas.—Prest. E. H. R. Green, of the Texas Midland, is quoted as saying that the road may be extended over 200 miles to connect with some system which desires an entrance to Texas.

Electric Railways.

Baltimore, Md.—Seven contractors are working at different portions of the Columbia & Maryland electric line. Most of these are grading between Laurel and Washington. Henry T. Douglas, at Baltimore, is supervising engineer.

Baltimore, Md.—The Baltimore Traction Co., Frank Brown, president, may construct a trolley line in the northern and northeastern suburbs through Waverly to Clifton Park.

Baltimore, Md.—The Maryland Traction Co., it is stated, has secured the road along Jones's falls, and will build an electric line through Woodberry and other suburbs to Mount Washington. The road will be about six miles long. George R. Webb, of the Pikeville & Emory Grove Company, is reported as interested.

Baltimore, Md.—The Edmondson Avenue, Catonsville & Ellicott City Company has asked permission to extend its trolley system along Monroe, Smallwood, Lexington, First, Catharine, Helen, Ramsey and Young streets, in the southwestern suburbs. Henry T. Douglas, Equitable Building, is president of the company constructing it. [This is a part of the Washington-Baltimore Boulevard line.—Ed.]

Bonham, Texas.—H. C. Alexander, Wm. Lanier, R. B. Semple and others have chartered the Bonham Railway, Light & Power Co., with \$25,000 capital. It proposes to build a trolley line.

Chattanooga, Tenn.—The new company in charge of the Chattanooga electric line will extend it to Rossville, in the suburbs. It is reported. C. A. Lyerly is president.

Clarksville, Tenn.—The officers of the Clarksville Electric Railway Co. are: Julian Gracey, president; W. R. Vaughan, vice-president; M. H. Clark, treasurer; R. M. Kelly, Jr., secretary; W. P. Davis, manager. Vaughan, Davis & Kelly have the contract to build the road.

Hagerstown, Md.—R. J. Hahn, of Hagerstown, representing Alexander Armstrong, Edward W. Mealey and John W. Stonebraker, is endeavoring to secure a franchise to build seven miles of electric line.

Hagerstown, Md.—W. F. Sadler, of Carlisle, Pa., desires to secure the electric railway franchise for a syndicate. [This is not the company already referred to in this issue.—Ed.]

Jacksonville, Fla.—Engineer J. F. Le Baron, of Jacksonville, has completed estimates for a line from Jacksonville to St. Augustine, by way of Mandarin, Fla.

Salisbury, N. C.—It is reported that a company may be formed to build an electric street railway.

Temple, Texas.—J. T. Gillett, D. S. Gallagher, T. S. Hollingsworth and others have decided to build an electric railway, and have asked the city council for a franchise.

Machinery, Proposals and Supplies Wanted.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.

Blast Machinery.—F. T. Ridge, 82 Piedmont avenue, Atlanta, Ga., wants sand-blast machinery.

Boiler.—J. R. Plummer, Farmers, N. C., wants to buy a forty horse-power boiler.

Boiler and Engine.—B. McRae, Arcola, Miss., is in the market for a fifty and seventy horse-power boiler and engine for saw mill.

Boiler and Engine.—H. P. Porter, Abbeville, La., wants a ten or twelve horse-power engine and boiler for same.

Boiler and Engine.—See "Saw Mill."

Boiler and Engine.—J. R. & Wm. Bernard, Fredericksburg, Va., want to buy a seventy horse-power engine and an eighty-five horse-power boiler.

Bone and Grist Mill.—Joe Mangham and L. R. Powers, Monroe, La., want to buy a grist mill and a bone mill.

Brick Machinery.—Amos Hales & Co., Fitzgerald, Ga., are in the market for wire cut brick and tile machine, forty or fifty horse-power engine, clay mixer, six one-wheel trucks, six wheelbarrows, for plant of 35,000 to 40,000 daily, two dump cars to hold one to one and one-half yards of clay, friction drum, 150 yards of 16 or 18-pound T rails for double track, second-hand or new.

Bridge.—Sealed bids will be opened April 7 for the construction of an iron bridge after plan and specifications now on file in the office of the county surveyors. Address W. V. Westerlage, commissioner, or John G. Tod, judge, Galveston, Texas.

Bridge.—Bids will be received up to March 15 for the construction of an iron and steel bridge, 580 feet long, across the Tar river, at Tarboro, N. C. Plans and specifications are on file. Address the county commissioners.

Canning Equipment.—W. M. Brooks,

Floral City, Fla., wants to buy complete equipment for cannery of 2000 cans daily, such as kettles, baskets, capping and other tools, etc.

Cement Plant (hydraulic).—Edmond Diller, Roanoke, Va., wants estimates on the cost of a hydraulic cement plant of 6000 tons capacity, including grinding and mixing machinery, to use steam power, etc.; equipment to be set down in seaport town for export.

Compressed-air Machinery, etc.—W. C. Newman, Ashland, Va., wants information regarding the transmission of power by compressed air from turbine wheel.

Cotton Gin.—A. Malsch & Co., Edna, Texas, will buy this year a cotton gin for Sea Island cotton.

Cotton Ginnery.—See "Saw Mill."

Cotton (Spool) Machinery.—C. B. Jenkins, Meeting and Cumberland streets, Charleston, S. C., wants to correspond with manufacturers of machinery for making spool cotton.

Crushing Machinery.—J. R. Keller, manager, Pensacola, Fla., wants rock crushers.

Electric-light Plant.—J. H. McIlwenee, Gibson Station, N. C., wants estimates on cost of an electric-light plant to accommodate a town of 1000 inhabitants.

Electric-light Plant.—Bids will be received soon for the erection of an electric-light plant at Lawrenceburg, Ky. Address John P. McWilliams for information.

Electric Machinery (Dynamo).—McCaddin & McElwee, 30 West Baltimore street, Baltimore, Md., wants a 50-light dynamo.

Engine.—See "Brick Machinery."

Engineering Specialties, etc.—The Washington Specialty Co., 3002 Q street, Washington, D. C., wants to correspond with manufacturers of engineering and mechanical specialties.

Excelsior Machinery.—J. R. & Wm. Bernard, Fredericksburg, Va., want to buy excelsior machinery.

Fans.—Goldstein, Mabry & Co., Shreveport, La., want to buy fans that operate by winding, as a clock.

Flour-mill Equipment.—The Washington Specialty Co., 3002 Q street, Washington, D. C., wants to correspond with manufacturers of flour-mill specialties.

Gasoline Engine.—Joe Mangham and L. R. Powers, Monroe, La., want to buy a twenty horse-power gasoline engine.

General Novelties.—H. C. Caldwell, P. O. Box 518, Baltimore, Md., wants catalogues, prices and discounts on general small novelties of all kinds for mail business.

Hoisting Machinery.—See "Brick Machinery."

Ice-plant Machinery.—Sawyer Brothers, Livingston, Texas, want to buy a two-ton compressor, ice-making capacity, new or second-hand.

Knitting Machinery.—J. S. White, Hartsville, S. C., wants full information regarding the manufacture of men's and ladies' undershirts, estimate on cost of plants, etc.

Knitting Plant.—J. H. McIlwenee, Gibson Station, N. C., wants estimates on cost of knitting plant of twenty-five machines; state power required and other particulars.

Laundry.—Beane & Shepherd, Waynesville, N. C., want to buy complete equipment for a steam laundry.

Lithographers.—The Novelty Manufacturing Co., Winchester, Ky., wants to correspond with lithographers and printers who can furnish cards for various advertising purposes.

Lumber Machinery.—The Harris Trading Co., Fort Valley, Ga., wants to buy a stump puller.

Lumber Truck.—The Fort Myers Building & Improvement Co., Fort Myers, Fla., wants two pairs of lumber trucks, about 24-inch wheels.

Machine Tools.—H. P. Porter, Abbeville, La., wants an iron-turning lathe, 20 or 24-inch swing; iron-turning lathe forty inches between centres, with 14-inch swing; drill press to drill holes up to one inch in diameter; second-hand machines in good condition will do.

Rails.—See "Brick Machinery."

Saw Mill.—H. Sumblin, Cross Trails, Ala., is in the market for thirty horse-power engine and boiler, saw mill, planer, cotton gin, condenser and feeder.

Sewing Machines.—The Randleman Trousing Co., Randleman, N. C., wants prices and information on machines for pants, overalls, etc.

Steamboat.—The Fort Myers Building & Improvement Co., Fort Myers, Fla., wants a stern-wheel steamboat, twenty or twenty-five horse-power.

Street Lamps.—The city of Blacksburg, S. C., wants to buy 100 street lamps, oil or gasoline. Address N. W. Hardin, superintendent.

Water-wheel.—J. H. McIlwenee, Gibson Station, N. C., wants a water-wheel of 12 horse-power.

Well-drilling Machinery.—Kozier & Bristow, Dillon, S. C., want to correspond with manufacturers of complete well-drilling outfits that drill according to the new process in which, first, a casing is put down, and inside the casing works a pipe through which the water is forced and washes the dirt, sand, etc., up and out between the pipes.

Wire Goods.—A. L. Owen, Pleasant Hill, Ga., wants to correspond with manufacturers of wire goods or varieties.

Woodworking Machinery.—J. R. Keller, manager, Pensacola, Fla., wants machinery for making wooden buckets, staves, handles, etc.

TRADE NOTES.

A fine water-power at Yackinville, N. C., is to be utilized to operate a 40-barrel flour mill. Contract for building the mill has been awarded to the Case Manufacturing Co., Columbus, Ohio.

The new electric-light plant about to be installed by the Brookside Cotton Mills, Knoxville, Tenn., will consist of a General Electric Co.'s dynamo and a Ball engine, of the Ball Engine Co.'s (Erie, Pa.) manufacture.

A well-equipped brick-yard is to be sold, owing to the inability of the owner to attend to its operation. The plant is located on the James river, and enjoys the advantages of superior clay and cheap fuel. T. F. Rogers, agent, Norfolk, Va., in a card in our advertising columns offers the property for sale.

Despite the ever-present cry of "hard times," brisk trade in many lines is being reported. The Jamieson Fire-Resisting Paint Co., of New York, is being kept quite busy filling orders for its fire-resisting paints and kalsomine. These products appear to have taken quite a hold upon the community, judging from the number of architects' specifications and general trade.

Messrs. Wilson & Edwards, of Columbia, S. C., architects and engineers, have just completed plans for a Baptist church at Gainesville, Fla., and are preparing plans for a Baptist church for Bennettsville, S. C.; also making plans for alteration of Presbyterian church at Columbia, S. C.; completed plans for a 12-room brick residence at Society Hill, S. C., and for residence for C. J. O'Leary, of Columbia.

Additions to the flattering endorsement secured by the Little Wonder oil cup are constantly being received by the manufacturer, W. J. Ferguson, Equitable Building, Baltimore. The claim of this device on public favor is based upon the remarkable saving in oil it effects. Being air-tight, no grit from outside can be conveyed to the bearings. It works automatically and feeds only when the engine is running. An interesting circular is issued by the maker.

Chas. A. Schieren & Co., the well-known belt manufacturers, of New York, Boston, Philadelphia and Chicago, have just received an order for four belts, thirty-six inches in width and double-ply, of their perforated Electric brand, for two electric-light plants in France. This order will amount to \$3100. This firm's export business has been on the increase, despite the recent war talk and unsettled financial conditions. Amongst recent domestic orders they report the sale of 136 11-12 feet of 54-inch double and 139 11-12 feet of 48-inch double Electric belting to the Electric Illuminating & Power Co., Long Island City, N. Y.

Mr. Daniel Webster, for fifteen years associated with the Babcock & Wilcox Co., has resigned his position, to take effect March 1. Mr. Webster for a number of years has been prominently identified with the manufacturing and construction department of the Babcock & Wilcox Co., and has made many friends among the large steam users and manufacturers throughout the United States. Mr. Webster goes with the manufacturer of the Cahall boiler, the Aultman & Taylor Machinery Co., Mansfield, Ohio. Although the Cahall boiler has demonstrated its superior qualities as a steam generator, we are informed that there are many cases where lack of head room or prejudice prevents the adopting of anything but a horizontal water tube boiler. The manufacturer has therefore decided to immediately engage in the manufacture of water-tube boilers of the

Rabcock & Wilcox type, and Mr. Webster will have entire charge of this department. Aultman & Taylor expect to be ready to begin delivering this type of water-tube boiler by June 1. H. E. Collins & Co., of the Bank of Commerce Building, Pittsburgh, Pa., general sales agents for the Cahall boiler, will act in the same capacity for this type.

The fact that the machine tool business is steadily but surely improving is a reliable forerunner of general prosperity, as that branch of business is generally the slowest and first to feel the upward impetus. The Davis & Egan Machine Tool Co., of Cincinnati, Ohio, which is one of the largest machine tool builders in the country, states that its business has increased wonderfully in the last three months over the previous nine, in the face of the fact that its Western business is also increasing and that this time of the year is generally the slowest in this line. Mr. Chas. Davis, president of this company, is now in the East on a visit to its various branches, making arrangements to handle its increasing business during the coming year.

Messrs. E. F. Dodson & Co., of Atlanta, Ga., general contractors and builders, are prepared to take contracts for the erection of buildings of all kinds in any part of the South. The firm has recently completed some good contracts, among them being the new United States postoffice building at Rome, Ga., and the new additional mill of the Fulton Bag and Cotton Mills, at Atlanta. This latter was constructed from plans by and under the supervision of Messrs. Lockwood, Greene & Co., of Boston, Mass., and consists of a main building 105x340 feet, five stories high; engine-house 50x60 feet, boiler-house 44x150 feet, fan-house 30x35 feet, condenser-house 16x30 feet, and smoke-stack 216 feet high. Mr. Dodson, of the above firm, is a practical man of long experience, having been in this business since 1870, and gives his personal attention to all contracts.

A model ice-making plant is to be installed at St. Louis, Mo. In the class of machinery to be used and the labor-saving devices employed, the plant will be one of the best of its class. It will be a can plant, and the blocks of ice will weigh 300 pounds. An electric crane and other apparatus for handling ice rapidly and manufacturing it at the least possible cost will be features of the factory. The Huse & Loomis Ice & Transportation Co. is building the factory, and contract for the machinery is awarded to the Frick Co., Waynesboro, Pa. Within the last thirty days or six weeks the same company has secured the following contracts: Geo. Keller Brewing Co., Philadelphia, Pa., 50-ton direct expansion plant for brewery; Birn Bros., grocers, Jersey City, N. J., four-ton direct expansion plant; Russell Myrick, Dallas, Texas, 30-ton ice-making plant, can system; Jacob Boneysteele, Belaire, Ohio, 10-ton can ice plant; C. C. Barrett, Martinsville, Ind., 10-ton can ice plant, with cold-storage warehouse; Sterling R. Holt, Indianapolis, Ind., for South Bend, Ind., 15-ton can ice plant, with some cold storage; Parker, Webb & Co., Detroit, Mich., 50-ton direct expansion plant; St. Louis Dairy Co., St. Louis, Mo., 20-ton brine plant; Wm. Focke & Sons, Dayton, Ohio, 50-ton brine plant.

About fifteen years ago a Baltimore man of affairs, of uncommon intelligence and observation, who had made a great fortune in several forms of enterprise, while deploring some of the neglected opportunities of Baltimore, said substantially: "This city, however, will become a notable manufacturing centre. It will wonderfully develop along those lines of industry. It has signal advantages of situation and distribution." His prediction was consummately fulfilled, for, as the Manufacturers' Record has repeatedly shown, the capital invested in manufactures in 1880 of \$38,000,000 has expanded to the enormous sum of about \$120,000,000. Among the skillful, progressive and indomitable men who prominently helped make the prophecy a reality, John C. and W. H. Matthai, James E. Ingram and George W. Knapp, constituting the firm of Matthai, Ingram & Co., Nos. 104, 111 and 113 Hanover street, this city, have a conspicuous place in the noble record. They are manufacturers of tinware on what may truthfully be called a colossal scale, for their factory, bounded by Ohio, Light, Winder and Byrd streets, has a floor space of over seven acres, and this busy place employs more than 900 hands. As machinery plays an important part in vast and successful fabrication of modern wares, the best of implements are running in this plant; and as invention is another secret of success, this firm has certain contrivances and patents of its own that make the

power of intelligence and ingenuity a complete union. The factory has departments for making its own tools, and an enamelling annex, where a peculiar composition, known only to this firm, is prepared. The grey-stone enameled ware turned out is popular everywhere, and the same is true of their pieced, plain and retinned stamped ware, japanned, galvanized and sheet-iron ware. They have a New York branch, 77 and 79 Beekman street, where a full stock is carried. By having the capital and skill necessary to manufacture on the largest scale at the cheapest rates, at the highest standard of excellence, the firm can dispose of its immense product readily to the consumer without fear of competition.

TRADE LITERATURE.

A new discount sheet, dated February 26, is issued by the American Screw Co., Providence, R. I.

Hardware dealers and the harness trade will be interested in the new monthly catalogue issued by the Covert Manufacturing Co., West Troy, N. Y. The Covert harness snaps, web and rope goods, chain goods, etc., for which there is a wide demand, are shown and prices given.

A modern saw mill is a machine whose capabilities and performances indicate a radical evolution from old-time methods. Some notable examples of the improvements made in this class of machinery are shown in a catalogue issued by the De Louch Mill Manufacturing Co., Atlanta, Ga. The De Louch mill has an established reputation and is conspicuous for the number and usefulness of its distinctive features. The variable friction feed which is used on this mill is widely commended, and has served, with several other important characteristics, to make the De Louch mill a popular one. Considerable practical information that will afford suggestions to saw-mill men is introduced in the catalogue.

Brick-machinery manufacturers continue to make important improvements in this class of equipment. The speed and economy with which bricks of various sizes, shapes and styles are produced show the high degree of perfection that has been attained. The latest types of improved machines are shown in a new catalogue issued by the Henry Martin Brick Machine Manufacturing Co., Lancaster, Pa. Since 1858 the inventions of Henry Martin have been a power in influencing the growth of the brick industry. Year by year conditions have developed new ideas, and the work of perfecting this machinery has steadily progressed. The machines of today, as a result, work with almost human intelligence. Every contingency seems to have been provided for, and even with unskilled labor good brick is turned out. These machines are constructed so as to be perfectly automatic and self-striking. They are so arranged as to clean off the tops of the molds as they come from under the press, thus lessening the number of hands employed. The various features of the machine are explained by the catalogue.

Improvements and advances made in the production of air compressors are described in a pamphlet issued by the Norwalk Iron Works Co., South Norwalk, Conn. We note that this company is ready to contract for any reasonable pressure that can be utilized or governed after leaving the compressor. Its present experience extends to 5000 pounds to the square inch, which is believed to be the highest pressure ever attained by any practical commercial machine. This company was the first to use the compound principle in this country and the first to adopt the mechanically moved valve. In awarding to it first prize at the World's Fair, Prof. W. C. Unwin said: "There can be no doubt but that the compound compressor is more efficient than a simple compressor." He also commended the use of mechanically moved valves on the in-take cylinder. The application of compressed air affords many opportunities for economy in factories. During the last few years the improvements in compressors have led to their more extensive adoption. Old uses have been extended; abandoned plans have been revived and economically carried out; many new processes, using compressors, have been developed, and experimenters are still busily engaged in further extending the uses of compressed air. This company has been called upon to build machines to develop heat, and to produce cold; to move air with a force hardly greater than the breath of a child, and to blow a shot from a cannon; to lift tons of iron, and to clean a watch; to steer a vessel, and to launch the torpedo to destroy her. The great availability of compressed air is evidenced by many installations of compressors, and their power is distributed through many miles of piping.

A Settlers' Convention.

A special dispatch to the Southern States magazine, of Baltimore, gives particulars of a Northern and Western settlers' convention which will be held at Southern Pines, N. C., on May 5, to be composed of persons from Northern and Western States and foreign countries who have settled in the Southern States of recent years, the object being to enable leading men from other sections, now living in the South, to express through a public convention their opinion as to the South and its advantages and attractions and the opportunities for people from elsewhere. The governors of the Southern States are taking a deep interest in the matter, and the delegates to the convention will be appointed by the governors, by county commissioners, by mayors of the cities and towns and by presidents of trade organizations throughout the South. Arrangements have also been made to insure a large attendance of representatives from influential journals in the Northern and Western States. Low railroad rates are guaranteed, and special efforts will be made, not only to have the most noted gathering of Northern and Western people now living in the South which has ever been held, but also to draw to the convention many people from the North in order that they may fully understand the South as presented by the delegates to the convention. It is expected that this will be one of the most important conventions ever held in the South as regards the influence which its deliberations will have in attracting the widest possible attention to the advantages of this section as told to the world not by Southern people, but by Northern and Western people who have made their homes in the South. Mr. John T. Patrick, of Southern Pines, is arranging the local details for the convention. The Manufacturers' Record would suggest that the Northern visitors be given excursions to noted scenic and industrial points in the Carolinas and Georgia.

Most of the peanut dealers in Virginia have entered into a combination entitled the Merchants & Farmers' Peanut Co. It includes thirteen concerns—six in Norfolk, two in Smithfield, one in Wakefield, one in Waverly and three in Petersburg. The officers of the new association elected on Tuesday are: D. Etheridge, of Norfolk, president; R. C. Marks, of Petersburg, vice-president; George M. Bain, secretary and treasurer.

CALIFORNIA.

Personally Conducted Tour via Pennsylvania Railroad.

So beautiful is the scenery of California that nature must have expended more than her usual energy in its creation, and especially is this true during the months of March and April, when the rainy season has passed and flowers bloom everywhere. Fortunate, indeed, is the person who can exchange the wintry climate of the East for the flower-perfumed and healthful atmosphere of California, and no better method of doing this can be had than by participating in the second "Golden Gate" tour, organized under the perfect personally-conducted tourist system of the Pennsylvania Railroad Co.

The tourists will leave New York and Philadelphia March 11, 1896, and return to those cities May 7, allowing four and one-half weeks in California.

A new feature to the magnificent train used for these tours in previous years is a through Pullman compartment car.

The car, which will be the very best that the Pullman Company can supply, will contain nine inclosed compartments—two drawing-rooms and seven state-rooms—and will be attached to the special train at Jersey City and run through to San Francisco.

Applications for space or itineraries giving all information should be made to Tourist Agent, Room 411, Broad Street Station, Philadelphia.

TABLE OF CONTENTS.

	Page.
Wants a Department of Manufactures and Commerce.....	87
EDITORIAL:	
Wants to See a Department of Manufactures.....	87
Why a Department of Manufactures is Needed.....	87
Must Change the Facts.....	87
The Currency Question.....	87
The B. & O. Receivership.....	88
Western Enterprise.....	88
An Extensive Lime Plant.....	88
Draining Florida Lands.....	88
The South's Day of Salvation.....	88
North Carolina Gold Fields.....	89
Population Moving Southward.....	90
Probable Important Development of Coal and Iron Property.....	90
RAILROAD NEWS:	
Heavy Increase in Railroad Earnings.....	90
For a Gulf Harbor.....	90
Aransas Pass Project.....	90
Exports from Pensacola.....	90
Rolling Stock for the Seaboard.....	90
An Important Short Line.....	90
Mobile to Jackson.....	90
Baltimore & Ohio Receivership.....	91
Another West Virginia Line.....	91
The Pennsylvania Report.....	91
Norfolk & Western Reorganization.....	91
Kansas City, Pittsburg & Gulf.....	91
Field's Advice to Garrett.....	91
A Unique Boycott.....	91
Railroad Notes.....	91
TEXTILES:	
A \$50,000 Mill for Laurinburg, N. C.....	92
A Bleachery at Augusta.....	92
Co-operative Cotton-Mill Companies.....	92
The Position of Cotton.....	92
Water-Power Development and Electric Transmission at Columbus, Ga.....	92
for Cotton Mills.....	92
Textile Notes.....	92
COTTONSEED OIL:	
The Market for Cottonseed Products.....	93
Cottonseed-Oil Notes.....	93
PHOSPHATES:	
Phosphate Markets.....	93
Phosphate and Fertilizer Notes.....	93
West Virginia Coal Output.....	93
Sale of Coal Lands.....	93
MECHANICAL:	
Johnson Tube Expander (Illus.).....	94
The Fitchburg Engine (Illus.).....	94
New Pittman Shear (Illus.).....	94
Spray Pump Agitators (Illus.).....	95
FINANCIAL NEWS:	
Baltimoreans Buying Bonds.....	95
Official Bank Changes.....	95
New Corporations.....	95
New Securities.....	95
Interest and Dividends.....	95
Iron Markets.....	95
LUMBER:	
Lumber Market Reviews:	
Baltimore.....	96
Savannah.....	96
Brunswick.....	96
Jacksonville.....	96
Fernandina.....	96
Mobile.....	96
St. Louis.....	97
The Country's "Lumber Reserve".....	97
Improved Dry-Kills.....	97
Lumber Notes.....	97
CONSTRUCTION DEPARTMENT:	
New Enterprises.....	98
Building Notes.....	99
Railroad Construction.....	99
Machinery Wanted.....	100
Trade Notes.....	100
Trade Literature.....	101
A Settlers' Convention.....	101

The March number of Meehan's Monthly gives some useful hints on floriculture and general gardening. It is published by Thomas Meehan & Sons, Germantown, Philadelphia, Pa.

The Southern States magazine is read by thousands of farmers, fruit-growers, stock-raisers and business men in all the North, West and Northwest, who are looking to the South as a future home and are trying to inform themselves as to the relative advantages of different parts of the South. If you have farm, garden or orchard property for sale the Southern States will put you into communication with buyers. Send for sample copy and rates. Manufacturers' Record Publishing Co., Baltimore, Md.; Wm. H. Edmonds, editor and manager.

Steam Yachts and Marine Machinery

Built by Marine Iron Works, Clybourn and Southport avenues, Chicago. Free illustrated catalogue. Write them for it.

Alphabetical Index of Advertisers.

FOR CLASSIFIED INDEX SEE PAGES 3, 5 AND 7.

A Abbott, B. S. 33 Ahrens & Ott Mfg. Co. 17 Aiken, Wm. Martin 25 Akron Belting Co. 10 "Alabama" 26 Albright, E. D., Co. 33 Allentown Hardware Works. 4 Allison Coupon Co. 28 Alsing, J. R., Co. 21 American Ball Nozzle Co. 41 American Banking & Trust Co. 25 American Imp. Anti-Frict. Met. Co. 34 American Ship Windlass Co. 45 American Supply Co. 44 American Well Works. 44 Ames Iron Works. 14 Arctic Machine Manufacturing Co. 8 Amittage-Herschell Co. 13 Armour, M. C. 26 Armstrong, Robt. S., & Bro. 27 Asbrand, C. W. 34 Atkins, E. C., & Co. 31 Atkins, Jos. L. 9 Atlanta Terra Cotta Co. 6 Austin, F. C., Mfg. Co. 9	B Babbitt & Wilson Co. 15 Bailey-Lebby Co. 21 Bailey, John T., & Co. 24 "Baldwin" Locomotive Works. 13 Ball, Geo. C., & Co. 28 Ball Engine Co. 16 Baltimore Engraving Co. 40 Baltimore Storage & Light Co. 40 Bangor Foundry & Engine Works. 4 Bankhead, Wm. B. 1 Barber Asphalt Paving Co. 25 Barnes, W. F., & John, Co. 13 Barnett, G. & H., Co. 48 Barrett, S. E., Mfg. Co. 35 Battle Creek Steam Pump Co. 42 Baum, N. B., Chairman. 25 Baumgarten, A. F., & Co. 28 Bay Line. 40 Beach, H. L. 40 Beard, R. H. 26 Beckley, A. J., & Co. 22 Bertsch & Co. 27, 33 Bealy, Chas. H., & Co. 48 Bethlehem Foundry & Machine Co. 33 Bethlehem Iron Co. 40 Big Four Route. 40 Bing, J. Howard. 18 Bird, Wm. M., & Co. 6 Birmingham Boiler Works. 18 Black Mfg. Co. 47 Blacker, M. M. 34 Blake, Geo. F., Mfg. Co. 42 Blakeslee Mfg. Co. 42 Block-Pollak Iron Co. 28 Blue Ridge Cement & Lime Co. 6 Bommer & Boschert Press Co. 25 Boston Belting Co. 10 Bostwick Fire Proof Steel Lath Co. 35 Bradford Mill Co. 12 Bradley Pulverizer Co. 10 Bradstreet Company. 9 Branson Machine Co. 37 Brenton, Chas. F. 26 Brightman Furnace Co. 19 Brooks, T. H., & Co. 34 Brown, A. & F. 41 Brown & Garber. 6 Brown & Kung Supply Co. 36 Brown Hoisting & Con. Mch. Co. 2 Bryan, Andrew J., & Co. 45 Buckeye Iron and Brass Works. 39 Buffalo Forge Co. 48 Burnham Bros. 43 Burns Manufacturing Co. 8 Burrows, E. T., Co. 34 Businell, G. H., Press Co. 39 Byers, Jno. F., Machine Co. 4	C Caldwell, H. W., & Son Co. 2 Camden Steel Roofing & Cor. Co. 31 Cameron, A. S., Steam Pump Wks. 42 Cameron & Barkley Co. 21 Campbell & Zell Co. 15 Canton Steel Roofing Co. 35 Card Electric Co. 40 Cardwell Machine Co. 29 Carlin's, Thos., Sons. 27 Carnell, George. 48 Caroline Iron Works. 21 Carver Cotton Gin Co. 39 Castner & Curran. 40 Catlett, Charles. 6 Catlin & Browne. 8 Channon, Wm. Co. 11 Chapman, H. A., & Co. 6 Chapman Valve Mfg. Co. 44 Charleston Lead Co. 21 Charlotte Machine Co. 38 Chattanooga Fdy. & Pipe Works. 4 Chattanooga Machinery Co. 6 Chattanooga Paint Co. 35 Chattanooga Steel Roofing Co. 34 Chesapeake Belting Co. 11	D Cheater Steel Castings Co. 13 Christy Fire Clay Co. 6 Chrome Steel Works. 13 Cinc., Hamilton & Dayton R. R. 40 Clapp, Geo. M. 27 Clapp & Co. 25 Clark Foundry & Machine Co. 9 Clark, W. J., & Co. 20 Clark, Jeremiah. 36 Cleveland, Lorain & Wheeling R. R. 40 Coaldale Brick & Tile Co. 9 Cocker, Wm. 32 Cohoes Iron Fdy. & Mch. Co. 38 Collins, H. E., & Co. 24 Columbus Iron Works Co. 8 Commercial Electric Co. 46 Commercial Wood & Cement Co. 6 Consolidated Roofing Works. 4 Contractors' Plant Mfg. Co., Ltd. 4 Corbett Mill & Machine Co. 23 Cordesman, Meyer & Co. 32 Cortright Metal Roofing Co. 34 "Cotton Stock" 26 Covert Mfg. Co. 44 Cox, Justice, Jr. 28 Crook, W. A., & Bros. Co. 4 Crompton Loom Works. 36 Cronk Hanger Co. 8 Culver Mfg. Co. 17 Cumberland I. & S. Shafting Co. 41 Curtis & Marble. 38 Cutler Mfg. Co. 33 Cypress Tank Co. 44	E Dake Engine Co. 9 Dall & Co. 28 Davis, G. M., & Son. 27 Davis & Egan Machine Tool Co. 44 Davis-Farrar Co. 44 Davis Foundry and Mch. Works. 4 Davis, Kelly & Co. 28 Dayton Fan & Motor Co. 45 Dean Bros. Steam Pump Works. 42 De Este & Sealey Co. 22 De Kalb, Courtenay. 6 De Loach Mill Mfg. Co. 33 Deming Co. 42 Dempwolf, C. H., & Co. 22 Diamond Machine Co. 9 Diaston, Henry, & Sons. 31 Dixon, Jos., Crucible Co. 48 Doig, Wm. S. 40 Dopp, H. Wm., & Son. 2 Dorner & Dutton Mfg. Co. 45 Dow Wire Works Co. 34 Draper, Geo., & Sons. 24, 37 Draper Machine Tool Co. 12 Dufur & Co. 34 Dunning, W. D. 25 Du Quoin Iron Works Co. 32 "Dust Collector" 27 Duval, J. E. 47	F Eagle Boiler Works. 15 Easton & Burnham Machine Co. 38 Eccles, S. Jr. 29 Edinburg Foundry & Machine Co. 31 Eisenbrandt Cycle Co. 47 Electric Storage Battery Co. 6 Electrical Supply & Telephone Co. 47 Electric y Newspaper Co. 47 Elliott Machine Co. 41 Emerson Co. 33 Empire Glass & Decoration Co. 34 Empire Paint & Roofing Co. 6 Engelberg Huller Co. 20 Enterprise Boiler Co. 16 Enterprise Machine Works. 27 Entwistle, T. C. 39 Epping, Carpenter & Co., Ltd. 43 Erwin Hydraulic Machinery Co. 6 Eddy Sprinkler Co. 23 Eddy Sprinkler Co. 23 Evans, George C. 48 Exchange Banking & Trust Co. 25	G Gainesville Iron Works. 20 Gallert, S. 26 Gandy Belting Co. 10 Gas Engine & Power Co. 45 General Electric Co. 47 General Fire Extinguisher Co. 36 Gilbert, C. M., & Co. 6 Ginsburg, R. L., & Sons. 28 Glascock & Co. 9 Gleason's Sons, John. 32 Glen Cove Machine Co., Ltd. 32 Golden's Foundry & Machine Co. 41 Gordon, Henningham. 6 Goubert Mfg. Co. 18 Graham, J. S., & Co. 31 Graves Elevator Co. 9 Gregory, C. E. 27 Greer, N. H. 26 Guarantors Liability Indemnity Co. 24 Guilbert, John C. N. 6 Guild & White. 6	H Haines, Jones & Cadbury Co. 6 Hales & Ballinger. 6 Harrington & King Perforat'g Co. 22 Harris, N. W., & Co. 16 Harrisburg Fdy. & Mach. Works. 16 Hartford Steam Boiler Inspection & Insurance Co. 8 Hashtman, Leon F. 6 Hausburg, E. O. 47 Heftman, Wm. A. 11 Help Wanted. 1 Hench & Dromgold. 33 Hendrick Mfg. Co., Limited. 6 Hero Stamping Works. 26 Hewitt, F. R. 26 Hickman, Williams & Co. 28 Hill, Clarke & Co. 12 Hirsch, L. K. 28 Hogan Boiler Co. 18 Holmes, E. & E., Machinery Co. 30 Holmes Fibre-Gra, hite Mfg. Co. 6 Hooper, Thos. W. 27 Hoopes & Townsend Co. 13 Hooven, Owens & Rentschler Co. 14 Horix Mfg. Co. 45 Horton Mfg. Co. 45 Howard-Harrison Iron Co. 6	I India Alkali Works. 39 Indiana Machine Works. 39 Ingersoll-Sergeant Drill Co. 24 International Corres. Schools. 6 Jameson Fire-Resisting Paint Co. 35 Jarden Brick Co. 48 Jeffrey Mfg. Co. 43 Jenkins Bros. 48 Jewell Belting Co. 11 Johns, H. W., Mfg. Co. 25 Johnson, Edwin Lehman. 39 Johnson Tool Co. 19 Joseph, Jos., & Bros. 24 Junction Iron & Steel Co. 24	J Kaess City Wheel Scraper Co. 9 K. M. & Co. 26 Kearney, J. W., & Son. 26 Keeler, E. Co. 16 Keene Machine Co. 19 Keighley, S., & Co. 34 Kennedy, J. D. 26 Kensington Engine Works. 4 Kibbourn & Jacobs Mfg. Co. 2 Kibbourn, J. M., & Co. 38 Kline, O. S., & Co. 26 Klutz & Mc. Robbins. 6 Knowles Loom Works. 38 Knowles Steam Pump Works. 42	K Lambert Gas & Gasoline Eng. Co. 19 Land Trust Co. of Georgia. 23 Lane Manufacturing Co. 32 Lange, Wm. H. A. 10 Law, John. 26 Law, Samuel, & Sons, Limited. 30 Lawrence, Robert Co. 24 Leffel, James, & Co. 10 Leitch Pump & Machine Works. 43 Leslie, T. H. 43 Lewis, W. S. 33 Lidgerwood Manufacturing Co. 4 Link-Belt Engineering Co. 23 Lisman, F. J. 25 L. M. Iron Works & Supply Co. 18 Long & Abbotter Co. 17 Lookout Steam Boiler Works. 6 Lovell Machine Shop. 26 Ludlow, J. L. 6 Ludlow-Saylor Wire Co. 34 Ludlow Valve Mfg. Co. 44 Lunkenheimer Co., The. 18 Lyon, A. I. 33	L Machinery Construction Co. 31 M. & Co. 10 MacKenzie, C. R., & Co. 6 Mailey, T. F., Jr. 26 Manhattan Equipment Co. 28 M. & Co. 9 Manufacturers' Aut. Sprinkler Co. 8 Manufacturers' Engineering Co. 39 Marine Iron Works. 9 Marion, J. T. 20 Marion Steam Shovel Co. 2 Martin, Henry, R. & Mch. Mfg. Co. 6 Maryland Mfg. & Construction Co. 15 Maryland Steel Co. 25 Maryland Trust Co. 25 Mason Machine Works. 38	M Mason Regulator Co. 43 Maxwell-Mason Tele. Mfg. Co. 47 Mayer, Andrew. 25 McClain Mfg. Co. 22 McLave, Brooks & Co. 18 McCully, R. 21 McEwen, J. H., Mfg. Co. 14 McGowan, John H., Co. 44 McGregor & Jackson Boiler Wks. 15 McKee, H. L. 27 McKenna, David. 34 McLanahan & Stone. 22 McLanahan Iron Works. 20 Melton, A. L. 6 Mercantile Trade List Co. 25 Merchants & Miners' Transp. Co. 40 Merrill Mfg. Co. 43 Meyer, Roth & Pastor. 4 Meyers, Fred. J., Mfg. Co. 34 Michel, P. F. 22 Middendorf, Oliver & Co. 25 Miller Gas Engine Co. 19 Milner & Kettig Co. 41 Minnigerode, Wm. 28 Minnigerode & Co. 28 Mitsukun, M., & Co. 28 Munro, Land & Improvem't Co. 26 Moore Mfg. & Foundry Co. 48 Morse, Williams & Co. 9 Morton, Reed & Co. 12 Moyes, L. M. 15 Mueller, H., Mfg. Co. 43 Munst & Sons. 22 Munro, S. Son & Co. 8 Munro Bros. 23 Munro, Chas., Belting Co. 11 Murphy, John, & Co. 25 Murray, Dugal & Co. 39 Murray, James & Son. 21	N National Pipe Bending Co. 18 National Water-Proof Fibre Co. 45 N. J. Car Spring & Rubber Co. 11 N. J. Car & Equipment Co. 27 Newburg Ice Mch. & Engine Co. 17 Newell Universal Mill Co. 31 New Orleans Roofing & Metal Wks. 25 Newport News Shipbuilding & Dry Dock Co. 45 New York Belting & Packing Co., Ltd. 11 New York Equipment Co. 25 N. Y. Fireproof Covering Co. 24 New York Machine Works. 27 New York, Mobile & Mex. S. S. Co. 40 New York & New England R. R. 1 Niagara Steaming & Tool Co. 48 Nicholson Fire Co. 48 Niles Tool Work & Co. 27 Nixons & Matmon Co. 40 Norfolk & Western Railroad. 40 Norman, J. J., Co. 19 Norsworthy, W. G. 26 North American Metaline Co. 9 North Carolina. 2 Northrop, A., & Co. 35 Norton Emery Wheel Co. 8 Nye & Trechick. 37	O Ober Lath Co. 32 Oerlein, R. 39 Old Dominion Line. 40 O'Neill Mfg. Co. 24 Otto Gas Engine Works. 6	P Pancoast, Henry B., & Co. 13 Parker, Wm. H. 25 Patrick & Carter Co. 47 Patasco Rubber Co. 10 Paxson, J. W., & Co. 9 Payne, Geo. W., & Co. 38 Peacock, George. 4 Peck-Smead Co. 19 Pen Argyl Iron Works. 4 Penberthy Injector Co. 48 Pennsylvania Machine Co., Ltd. 28 Pennsylvania State College. 6 Perkins Mfg. Co. 29 People's Pure Ice Co. 26 Petersburg Iron Works Co. 17 Pettie Machine Works. 38 Philadelphia Eng. Works, Ltd. 17 Phila. Machine Screw Works. 4 Philadelphia Steel Roofing Co. 34 Phoenix Iron Works Co. 4 Pickrell, Percy A. 25 Pittsburg Locomotive Works. 6 Place, George, Machine Co. 27 Poona Terra Cotta Co. 6 Porter, H. K., & Co. 13 Poulter & Co. 28 Powhatan Clay Mfg. Co. 48 Pratt, N. P., Laboratory. 6 Prentiss Tool & Supply Co. 27 Price & Co. 29 Price & Head. 29 Progress Mfg. Co. 39 Providence Machine Co. 38 Pulsometer Steam Pump Co. 42	Q Q. & C. Company. 13 Queen City Printing Ink Co. 40 Queen City Supply Co. 8 Queen & Crescent Route. 1	R Raht Bros. 27 Raleigh Water Co. 47 Rand Drill Co. 44 Record Printing House. 10 Reliance Gauge Co. 15 Remington Machine Co. 27 Repugno Chemical Co. 10 Replogle Governor Works. 47 Rhoads, J. E., & Sons. 11 Richmond & York River Line. 40 Richmond Loco. & Mch. Wks. 13 Ricker, Lee & Co. 28 Ridgeman Cement & Mfg. Co. 6 Ripley, H. C. 6 Risdon, T. H., & Co. 6 Roanoke Roofing & Met. Cor. Co. 34 Roberts Steel Chain Belting Co. 23 Robertson, Jas., Mfg. Co. 21 Robins, A. K., & Co. 10 Robinson, J. M., & Co. 33 Robinson, Wm. C., & Son. 44 Robinson & Orr. 28 Rogers, S. C., & Co. 31 Rogers, T. F., Agent. 26 Ross-Meehan Foundry Co. 20 Rowley & Hermance Co. 30	S Ruger, J. W., & Co. 19 Rumsey & Co., Ltd. 12 Ryan-McDonald Mfg. Co. 4 Ryther Mfg. Co. 39	S Sanderson, John. 6 Saunders, D. Sons. 12 Scaife, Wm. B., & Sons. 2 Schieren, Chas. A., & Co. 11 Schofield's, J. S., Sons & Co. 9, 27 Schwarzenberg Bros. & Co. 28 Senonian-May Co. 12 Seyfert's, L. F., Sons. 27 Shawhan-Thresher Electric Co. 47 Sheppard, S. C. 41 Shultz Belting Co. 11 Simpson, J. S. & G. F. 6 Sinclair, S. H., Co. 45 Situations Wanted. 4 Skinner Chuck Co. 4 Smethurst & Allen. 47 Smith Courtney Co. 19 Smith, S. Morgan. 43 Smith & Kilby Co. 28 Smith's Sons Gin & Machine Co. 39 Sneed & Co. Iron Works. 26 Snow Steam Pump Works. 42 Southeastern Plaster Co. 6 Southern Expanded Metal Co. 35 Southern Iron & Equipment Co. 28 Southern Lumber Directory. 29 Southern Water Supply Co. 44 Southern Pacific Co. 4 Southern Railway Co. 4 Southern Real Estate Exchange. 26 Southern Telephone Co. 47 Southern Terra-Cotta Works. 6 Southern Water Supply Co. 44 Sperry, R. B., & Co. 25 Springfield Machine Tool Co. 25 Sprout, Waldron & Co. 23 Standard Paint Co. 35 Standard Tool Co. 25 Starr, B. F., & Co. 23 Steel Rail Supply Co. 28 Stender, William L. 21 Steptoe, J., & Co. 27 Sterling Emery Wheel Mfg. Co. 48 Stevens, H., Sons Co. 8 Stevenson & Co. 16 Stewart, Jas., & Co. 6 Stewart Contracting Co. 6 Sulwell-Bier & Smith Valve Co. 42 Stirling Company. 15 Stow Flexible Shaft Co., Ltd. 10 Stow Mfg. Co. 16 Stromberg-Carlson Tel. Mfg. Co. 47 Struthers, Wells & Co. 14 Sturtevant, B. F., Co. 38 Sturtevant Mill Co. 20 Sullivan Machinery Co. 22 Suter-Linder Pulley Co. 41	T Talbot & Sons Co. 16 Taper-Sleeve Pulley Works. 41 Thursby, Jas. E. 28 Titus, E. E. 32 Tompkins Co., The D. A. 15 Tonkin Boiler & Engine Wks. Co. 15 Toomey, Frank. 27 Trenton Iron Co. 4 Trevor Mfg. Co. 31 Tripod Paint Co. 35 Triumph Electric Co. 47 Tudor Boiler Mfg. Co. 15 Turman, Solon B. 26	U Union Central Life Insurance Co. 4 Union Chain Works. 2 Union Foundry & Machine Works. 20 Union Iron Works Co. 28 Union Electric Co. 47 U. S. Machine Co. 2 U. S. Sanitary Co. 20	V Vaile & Young. 34 Vaile & Murdoch Iron Works. 15 Vaile Iron Works. 15 Vandusen, E. W. 44 Vulcan Works. 19	W Wagner, A. P., Co. 12 Wais & Roos Punch & Shear Co. 27 Walker Mfg. Co. 44 Walker & Elliott. 21 Warner Elevator Mfg. Co. 9 Warren Chemical & Mfg. Co. 35 Watkins & Hardaway. 6 Weber, F., & Co. 48 Webster, Warren, & Co. 8 Wedderburn, John, & Co. 48 Weir Frog Co. 4 Western Maryland Railroad. 14 Westinghouse, Church, Kerr & Co. 14 Westinghouse Elec. & Mfg. Co. 46 Westinghouse Machine Co. 16 Whaley W. B. Smith, & Co. 6 Whately & Co. 26 Wheeling & Lake Erie Railway. 1 White, L. L., & Co. 6 White, L. L., & Co. 6 White, Thos. H., & Co. 21 Whitinsville Spinning Ring Co. 26 Whitney, E. S. 6 Whitridge, Frick & Co. 36 Wilkinson Mfg. Co. 19 Williams Bros. 42 Williams, I. B., & Sons. 10 Williams, John L., & Son. 25 Willis Import Machine Co. 30 Wilson, R. M. 10 Wilson & Seay. 27 Wolf, Aug., & Co. 24 Wood, R. D., & Co. 4 Wood, T. B., Sons. 21 Woodhull, Jesse C. 26 Woolford, N. B. 27 Woolverton & Tinsman. 26 Worthington, Henry R. 24 Wright Company. 17 Wrightsville Hardware Co. 25	Y Verkes & Finan Wood's Mch. Co. 31 Young Lock Nut Co. 47	Z Zerk, marked thus * appear every other week. Zerk, marked thus † appear in 6th issue of each month. Zerk, marked thus ‡ not in this issue.	AD Ad. marked thus * appear every other week. Ad. marked thus † appear in 6th issue of each month. Ad. marked thus ‡ not in this issue.
---	--	--	---	--	---	---	--	---	--	--	--	---	--	---	--	---	---	---	---	--	--	--	---	--	--	---